

# PSYCHOLOGICAL ABSTRACTS

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# PSYCHOLOGICAL ABSTRACTS

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## GENERAL

4607. [Anon.] **Johannes Müller (1801-1858).** *J. Organotherap.*, 1932, 16, 208-210.—A short biography of the man, with a partial bibliography.—*E. H. Kemp* (Clark).

4608. [Anon.] **Bibliographie des Jahres 1931.** (Bibliography of 1931.) *Zsch. f. Psychol.*, 1932, 125, 293-412.—2351 psychological articles and books which appeared in German, together with an author index.—*E. Johns* (New York City).

4609. **Bousquet, G. H.** **Pareto's "residues."** *J. Hered.*, 1932, 23, 154-157.—An epitome of Pareto's views on reason and emotion in human affairs. Two categories of the non-logical action-inducing emotions are recognized: (1) a constant category, by far the most important, which corresponds to certain human instincts and emotions, termed the "residues," and (2) another category derived from the former which aspires to justify the former and satisfy man's need for reason and logic. Under (1) are classified and discussed (a) instinct of combinations, (b) persistence of the aggregates, (c) need of manifesting sentiments by external actions, (d) sociality, (e) integrity of the individual and of his dependents and possessions, (f) sexual residue.—*B. S. Burks* (Stanford).

4610. **Bovet, P.** **Zur Einführung.** (An introduction.) *Psychol. Rundschau*, 1932, 4, 49-54.—Commenting on the fine relationship which has existed between the Rousseau Institute at Geneva and the psychologists of German Switzerland, the author expresses appreciation of the dedication of this issue of the *Rundschau* to the Institute on the occasion of its twentieth anniversary. He commends Edouard Claparède on his worthy work in connection with the new pedagogy evolved in line with the Rousseau ideals.—*A. B. Herrig* (Michigan Central State Teachers College).

4611. **Brantmay, H.** **Kampf um den Geist.** (A contention relative to the mind.) *Psychol. Rundschau*, 1932, 4, 67-70.—History has seen many crises, each generation feeling that it is living through one. The author contends that the present-day new psychology presents the greatest crisis of our age.—*A. B. Herrig* (Michigan Central State Teachers College).

4612. **De Boer, C.** **Sceptical notes on the sense-datum.** *J. Phil.*, 1931, 28, 505-519.—The fact of sense-data or sensa is not questioned. The "physical theory" assumes physical objects of which the sensa are appearances. The common alternative theory takes sensa as ultimate and explains physical objects as correlations of sensa. Both involve numerous objections, mainly through the fault of over-simplification. A more adequate, though perhaps not complete, theory would take account of the act of apprehension

and the function of symbolization. Apprehension includes interpretation and judgment, and the object of the perceptual situation is never simple, never an immediate experience, but is constituted in the process of symbolization. In symbolization there are two variables, the sensum which varies with perspective, etc., and the meaning which varies according to background, purpose, etc. The physical object is constituted in this process.—*E. T. Mitchell* (Texas).

4613. **Dockeray, F. C.** **General psychology.** New York: Prentice-Hall, 1932. Pp. xxi + 581. \$3.50.—A text-book for elementary students. Psychology is classified as a biological science, and the method of treatment is objective and behavioristic. The following major topics are discussed: fields of psychology, 22 pages; psychology as a branch of science, 40 pages; the organism, 44 pages; genesis of human behavior, 58 pages; motivation, 28 pages; emotion, 26 pages; organized response, 47 pages; sensory discrimination, 72 pages; learning, 81 pages; thinking, 23 pages; levels of attainment, 46 pages; social behavior, 34 pages; and personality, 23 pages.—*W. S. Hunter* (Clark).

4614. **Galdo, L.** **Modificazioni apportate all'ergostesiometro del Galeotti per la ricerca delle attitudini muscolari.** (Modifications of the ergesthesiometer of Galeotti for the investigation of muscular attitudes.) *Policlinico*, 1931, 33, 1207.—A résumé.—*R. Calabresi* (Rome).

4615. **Ghigi, A.** **L'origine della specie nell'odierna biologia sperimentale.** (The origin of species in present-day experimental biology.) *Nuova ant.*, 1931, 270, 381-392.—There is a discussion of the three theories concerning fundamental causes of transformation of species; and a presentation of facts to prove that the theory of mutations (De Vries) has been confirmed by experimental observations. There follows a critical examination of the concept of adaptation to environment and orthogenesis.—*R. Calabresi* (Rome).

4616. **Govinda, B.** **Abhidhammattha-Sangaha, ein Compendium Buddhistischer Philosophie und Psychologie.** München-Neubiberg: Benares-Verlag (Ferd. Schwab), 1931. Pp. 232. RM. 7.00.—The volume consists of three parallel parts: (1) the translation from the original Pāli, (2) a systematic analysis of the original text in the form of diagrams and tables, and (3) explanatory essays following each chapter. The translation can be compared with the Pāli text word for word with the aid of a special system of enumeration, so that even one who is not acquainted with Pāli will be able to understand the terminology of the original text, its logical structure and composition, and the relations between the fundamental ideas and concepts. Those who do not want

to go into philological details will find the contents of every chapter explained in the essays following. Not only is Buddhist psychology shown as an organic system, but the principles on which it is based, the manner in which it is developed from the data of experience, and the reason for the arrangement and composition of the material are explained. The book does not stop with the philological and psychological analysis, but proceeds with up-to-date scientific methods to a positive synthesis of Buddhist psychology. Some chapters of the book were published several years ago in the *Zeitschrift für Buddhismus* under the editorship of Wilhelm Geiger.—*W. Wirth* (Leipzig).

4617. Gruender, H. *Experimental psychology*. Milwaukee: Bruce, 1932. Pp. xiii + 455. \$2.50.—This work is offered as "a reference book in advanced courses of psychology." "Supreme insistence has been placed . . . on the central fact that experimental psychology is strictly a natural science, and as such must be subject to strictly scientific methods." Chapters deal with the scope of psychology; sensations; color sensations; auditory sensations; the monocular perception of space; the binocular perception of space; imagination; memory; attention; instinct; thought; and the will. Each chapter is followed by a brief list of references for further reading. The "summing up" of the two chapters on instinct characterizes the nature of the book, when not concerned with directly sensory phenomena. It contains the following words: "In our sensitive impulse theory . . . all of the facts of animal life are harmoniously explained. Of course, our doctrine supposes the existence of an All-wise Creator who directs all His creatures in accordance with each one's peculiar nature and to ends which fit into the comprehensive plan of Divine Providence. And our doctrine safeguards man's unique place in nature as king of the visible creation. These aspects of our doctrine are probably the real reasons why our simple explanation of animal instinct is not acceptable to many."—*O. L. Harvey* (Boston).

4618. Hammond, M. "Gestalttheorie": its significance for teaching. *Brit. J. Educ. Psychol.*, 1932, 2, 153-172.—Summarizes the Gestalt theories as contrasted with associationism, and reviews particularly the work in the field of visual perception. Points out similarities with conclusions of Ward and Stout, based largely on introspection and using the terms "attention" and "meaning." Conclusions are closely related to experiments in memory and reading, showing the superiority of "whole" over "part" learning. Suggests further possibilities of teaching by wholes as an elaboration of the theories.—*K. M. Cowdery* (Stanford).

4619. Harms, E. *Einige charakteristische Züge der Psychologie Harald Höffdings*. (Characteristic features of Harald Höffding's psychology.) *Zsch. f. Psychol.*, 1932, 125, 249-289.—Harald Höffding himself wrote: "The main idea with which I am concerned, or still better, the hypothesis which I am trying to establish and to confirm, states that the fundamental law of the psychic or conscious life, in which

the psychic existence manifests itself, is synthesis." He was a strong adherent of voluntarism. Höffding's psychology is a purely "psychological" psychology, which tends to explain all psychic phenomena by themselves and not as manifestations of neurological systems that might underlie them.—*E. Johns* (New York City).

4620. Jalota, S. S. The effect of gravity on the values of the Hipp chronoscope readings. *Indian J. Psychol.*, 1932, 7, 59-65.—Using a Wundt control hammer to start and stop the recording mechanism of a Hipp chronoscope, 20 readings were taken under each of two arrangements, one a "make-to-break" arrangement using only the lower pair of electro-magnets and the other a "break-to-make" arrangement using only the upper pair. Between the mean values obtained by the two methods a considerable difference was found, which seems to be due to the interference of the force of gravity. The author thinks that this interference can be completely avoided by a modification of the present model in such a manner as to keep the pull of the electro-magnets in a horizontal plane.—*E. H. Kemp* (Clark).

4621. Lechers, E. *Lehrbuch der Physik für Mediziner, Biologen, und Psychologen*. (Textbook of physics for physicians, biologists and psychologists.) Berlin: Teubner, 1930. Pp. 472. 18 M.—Physical phenomena extend to living beings as well as inanimate matter. Therefore the laws of physics are important for biologists, physicians, and psychologists. This is pointed out in the sixteenth edition of Lechers' *Traité de Physique*. The explanation of physical facts is always followed by a discussion of their application to the phenomena of life. In this edition are mentioned the more modern researches on mitogenetic irradiation, on the Raman effect, electro-acoustics, ultra-violet rays, the periodic classification of elements, etc.—*R. G. Sherwood* (Redmond, Washington).

4622. Loeser, J. A. *Die psychologische Autonomie des organischen Handelns*. (The psychological autonomy of organic activity.) In *Abhandlungen zur theoretischen Biologie*. Berlin: Bornträger, 1931.—For the author, all conduct is conscious, voluntary, intentional. The only exceptions are involuntary or reflex movements and phenomena of expression, as mimicry, etc. "The source of each movement is a conscious excitation." Three factors condition the response to this stimulation: (1) the physical constitution, (2) the milieu, and (3) the psychic capacities (sensory excitability, affective sensitivity, intelligence, memory, will). The concepts of automatism, of instinct, and of the unconscious are eliminated from the language of psychology. All is autonomy, liberty. There is a special chapter on animal behavior to illustrate the author's views on free will.—*R. G. Sherwood* (Redmond, Washington).

4623. Murchison, C. [Ed.] *The psychological register*. Vol. III. Worcester: Clark Univ. Press, 1932. Pp. xi + 1269. \$10.00.—This is the revised and enlarged edition of this directory, the original edition of which (see IV: 476) will be called Volume

II; Volume I will be a parallel work covering deceased psychologists back to antiquity. There are represented in the present volume 40 countries, as against 29 in Volume II, and about 2400 psychologists as against about 1250. The individual bibliographies have been made as nearly complete as possible. There is a complete name index, in which all known forms of the names are listed.—*R. R. Willoughby* (Clark).

4624. **Patrick, G. W.** *Founding the psychological laboratory at the State University of Iowa; an historical sketch.* *Iowa History & Pol.*, 1932 (July). Pp. 15.—*O. L. Harvey* (Boston).

4625. **Richards, I. A.** *Human nature; an early Chinese argument.* *Psyche*, 1932, No. 47, 62-77.—In a word-for-word translation of probably the most famous and most important argument in the history of Confucianism, a dialog between Mencius and Koa Tzu, we are given an opportunity to compare Chinese and Western philosophic methods. While the interests of the argument are specific, they are directed to definite ultimate convictions, and are devoid, in general, of concern for theoretical adequacy; the movement is always concrete with little show of concern for the general. The Chinese mind operates within an unquestioned limit, "the accepted moral system," and in such arguments seeks a conception of the mind that will serve the purposes of the same. We can find parallelisms in our Western conceptions of the mind.—*T. R. Garth* (Denver).

4626. **Sander, F.** *Ganzheit und Gestalt. Psychologische Untersuchungen. I. Funktionale Struktur, Erlebnisganzheit und Gestalt.* (Totality and form. Psychological investigations. I. Functional structure, totality of experience and form.) *Arch. f. d. ges. Psychol.*, 1932, 85, 237-260.—The author presents the limitations of a pure consciousness-psychology. It neglects the realm of emotional experience; feelings as indivisible qualities of consciousness as a whole are destroyed by analysis. It gives no access to personality problems, which deal not with actual consciousness phenomena, but with an enduring structural principle that determines individual experience and activity. It is this trans-phenomenal psychical principle which gives all our acts relation and meaning. The writer seeks to justify the assumption of this principle even for the field of perception. It manifests itself in the urge toward meaningful form and symmetry, in the playful modeling of children, in primitive art, in architecture, in the learning of memory material, and even in work rhythms. This structural determinative principle may be considered as operative throughout the entire realm of psychical reality, from the biological substructures of impulsive tendencies to the highest value tendencies of moral and religious forms of experience and behavior. When the balance of the structural components, the trans-finite form of the psyche, is disturbed, a feeling of unpleasantness, of dissatisfaction, results. When the member structures are in harmony with the whole, a profound feeling of joy is experienced.—*J. L. Jervis* (Yale).

4627. **Sastry, N. S. N.** *Growth of psychology in India.* *Indian J. Psychol.*, 1932, 7, 1-40.—The growth of psychology in India from the time of the Upanishads (about the 7th century B. C.), the Geeta, and the Lokayata (who maintained the supremacy of sense perception, and believed that thought was a function of matter) down through the Jains (who held to a theory resembling parallelism) of about the 5th century B. C., the Mahayana (idealistic) and Hinayana (realistic) schools of the Buddhistic teachers, and the theistic schools of Indian thought (the Samkhya, Yoga, Nyaya, Mimamsa, and Vedanta) to the foundation of the first psychological laboratory in Calcutta in 1916 is sketched in this work.—*E. H. Kemp* (Clark).

4628. **Scherer, M.** *Die Lehre von der Gestalt. Ihre Methode und ihr psychologischer Gegenstand.* (The doctrine of the Gestalt. The method and the psychological material.) Berlin, Leipzig: De Gruyter, 1931.—Scherer holds that Gestaltists are not alone in recognizing behavior patterns, the dangers of atomistic analyses, and the need for viewing individuals and situations in their totality. He, however, does not feel any prejudice against any of these conceptions. The Gestalt theory is fundamentally a biophysical conception which twists the psychic into a form of "natural" phenomena. Without a philosophically adequately oriented critical method a psychophysical organism is placed in a circle of natural processes and then the totality of reactions is investigated. Any given reaction is considered as an objectively observable effect of the environmental relationships. With this approach Scherer seeks to show in Part I that the underlying principle of Gestalt investigations is the old naturalistic mode of thinking which investigates the reactions of a psychophysical organism on the basis of a natural science. In this procedure the summative character of the Gestalt constellations is denied and is replaced by Gestalt "laws." In Part II the writer investigates the adequacy of Gestalt psychology as a science of the inner and outer behavior of living organisms, in solving the "real" problems of psychology. The adherents of the Gestalt conception of unity of responses meet some of these problems simply by discarding spontaneity, subjectivity, activity, meaning, etc. What remains is a reaction automaton. The Gestaltist representation of this automaton is admittedly a much more closely organized conception than that of the other "natural science" psychologies, since these could only assemble the machine parts, but could not put them together. Scherer acknowledges the contributions of the Gestalt movement but denies the validity of the claims for universality made by its adherents.—*O. N. de Weerd* (Beloit).

4629. **Seelbach, H.** *Verstehende Psychologie und Individualpsychologie.* (Understanding psychology and individual-psychology.) *Int. Zsch. f. Individ-psychol.*, 1932, 10, 262-288.—"Understanding psychology" is represented in the presentations of Dilthey (1894), Jaspers (1913), and Spranger (1920), who recognize understanding and the mental life as a function not explicable in terms of cause and



effect. The present article represents Part I and compares Dilthey and Adler. Two other parts, treating Jaspers and Spranger, are to follow. Points of comparison discussed are: (1) the field and presuppositions; (2) the understanding; (3) teleology of the psychic life; (4) the unconscious; (5) static and dynamic conceptions of mental life; (6) society; (7) character; (8) values and norms.—*O. N. de Weerdt* (Beloit).

4630. Smuts, J. C. *Das wissenschaftliche Weltbild der Gegenwart*. (The present-day scientific conception of the world.) *Int. Zsch. f. Indiv.-psychol.*, 1932, 10, 244-261.—Translation of the presidential address delivered at the 1931 meeting celebrating the centennial of the British Association for the Advance of Science.—*O. N. de Weerdt* (Beloit).

4631. Urban, F. M. *Die Messbarkeit psychischer Mannigfaltigkeiten*. (The measurability of psychic complexes.) *Arch. f. d. ges. Psychol.*, 1932, 85, 229-236.—Assuming that psychic complexes are measurable, the author asks, with reference to a definite experimental material, what conclusions may be drawn from this assumption. He finds that Thurstone's assumption that the multiplicity of intervals is measurable is in accord with experience.—*J. L. Jervis* (Yale).

4632. White, W. A. *The study of the mind*. *Science*, 1932, 76, 90-92.—The study of the mind, as this author conceives it, is a "biological science which undertakes to investigate and explain . . . outwardly observable behavior . . . [and] circumstances in that world within us which can only be approached by methods of introspection." Psychopathology is concerned with the phenomena of distortions of reality which take place in the mentally diseased. The psyche is considered as "an organ, the function of which . . . is the equalizing of stresses and the releasing of tensions, with the necessary tendency to bring to pass a state of equilibrium—not a static but a dynamic equilibrium."—*E. H. Kemp* (Clark).

[See also abstracts 4652, 4830.]

#### SENSATION AND PERCEPTION

4633. Accardi, V., & Fontana, G. *Sul sistema reticolo-endoteliale dell'occhio. Ricerche sperimentali*. (On the reticulo-endothelial system of the eye. Experimental studies.) *Boll. d'ocul.*, 1931, 10, 1056-1066.—The authors studied the reticulo-endothelial system of the ocular globe and its appendages in the rabbit, making use of primary colors.—*R. Calabresi* (Rome).

4634. Allen, F. *The principles of induction in color vision*. *Amer. J. Ophth.*, 1932, 15, 789-800.—Using the rate at which fusion of flicker occurs as an index of color brightness, the author studies the effects of prior chromatic adaptation. Resulting marked changes in the rate of fusion at certain points in the spectrum are offered as evidence for Young's trichromatic theory. Various phenomena often considered inconsistent with Young's theory are interpreted according to an hypothesis of inductive facilitation and inhibition. The author would reconcile Hering's

theory by interpreting it in terms of neural rather than of chemical mechanisms.—*C. W. Darrow* (Behavior Research Fund, Chicago).

4635. Ames, A., Jr., Gliddon, G. H., & Ogle, K. N. *Size and shape of ocular images. I. Methods of determination and physiologic significance*. *Arch. Ophth.*, 1932, 7, 576-597.—Factors which determine differences in the size and shape of ocular images are enumerated and a clinical instrument is described by the use of which measurements necessary for the determination of these differences may be made. These differences are significant in that, when there is an abnormal difference between the images from the two eyes, there is a derangement of the space world as known from binocular vision.—*E. H. Kemp* (Clark).

4636. Ames, A., Jr., & Ogle, K. N. *Size and shape of ocular images. III. Visual sensitivity to differences in the relative size of the ocular images of the two eyes*. *Arch. Ophth.*, 1932, 7, 904-924.—The peripheral resolving power for difference in the size of the ocular images is less than 0.25%, according to the authors. In this paper the effect of Panum's areas in nullifying these differences is discussed. However, it is concluded that even smaller differences than these least perceptible ones may have an influence on perception.—*E. H. Kemp* (Clark).

4637. Arndt, G. *Über die Abhängigkeit des Stereoeffektes von der Geschwindigkeit der bewegten Marke*. (The dependence of the stereo-effect on the speed of a moved mark.) *Zsch. f. Biol.*, 1930, 90, 574-588.—(*Biol. Abst.* VI: 15944).

4638. Ask-Upmark, E. *On the cortical projection of the temporal half-moon of the visual field*. *Acta Ophth.*, 1932, 10, 271-290.—Earlier investigations are critically surveyed. A case is communicated where the temporal crescent of the visual field was deficient, due to a tuberculous focus of the cortex of the cuneus. The author states that the cortical projection of the nasal periphery of the retina, which corresponds to the temporal half-moon, is the anterior part of the calcarine region, probably the environs of the confluence between the calcarine fissure and the parieto-occipital fissure. The upper half of the nasal periphery of the retina is represented in the superior lip of the calcarine fissure, the lower half in the inferior lip, contrary to what has been heretofore believed.—*E. H. Kemp* (Clark).

4639. Ballezio, A. *Fotosensibilizzazione e fotodinamismo*. (Photosensitivity and photodynamism.) *Actinoterap.*, 1931, 61-70.—*R. Calabresi* (Rome).

4640. Behr, C. *Der Anteil der beiden Antagonisten an der Pupillenbewegung bei den verschiedenen Reaktionen*. (The action of the two antagonistic muscles in pupillary movements in different reactions.) *Arch. f. Ophth.*, 1930, 125, 147-155.—Behr describes a contusion case in which the sphincter muscle was detached from the dilator for one-tenth of its circumference. He observed the reactions of the two membranes, which moved freely, the one on the other. He found that a pupillary contraction, caused by light or the convergence of the eyes, was due, not only to a stimulation of the sphinc-

ter, but also to a simultaneous relaxation of the dilator. Mental activity stimulated the dilator through the sympathetic system, to which activity was added a relaxation of the sphincter if the mental effort was sufficiently intense. Scopolamine and atropine not only paralyzed the sphincter but also stimulated the dilator after a little delay, a condition which supports Poos' experiments *in vitro* and is opposed to Munch's theory which denies the activity of the sphincter. Cocaine stimulated the dilator without visible effect on the sphincter. Pilocarpine simultaneously contracted the two membranes, while the addition of eserine caused a strong contraction of the sphincter, bringing about a painful myosis due to the stretching of the dilator. The experiments on the living iris do not verify in any way Poos' idea of the specialized rôle of the sphincter (cf. Poos' article on this same subject), the tonus of which was found to be linked simply with that of the parasympathetic system.—A. B. Hunter (Clark).

4641. Berens, C., & Stark, E. K. Studies in ocular fatigue. III. Fatigue of accommodation: history, apparatus, and methods of graphic study. *Amer. J. Ophth.*, 1932, 15, 216-223.—Two ergographic methods of testing accommodation, the sustained effort test and the repeated effort test, are employed with control of rest periods, rate of approach or recession of test object, and illumination.—C. W. Darrow (Behavior Research Fund, Chicago).

4642. Berens, C., & Stark, E. K. Studies in ocular fatigue. IV. Fatigue of accommodation, experimental and clinical observations. *Amer. J. Ophth.*, 1932, 15, 527-542.—An ergographic study of the fatigue of accommodation under lowered oxygen tension was made on 165 qualified and 14 disqualified aviators, and on 195 (mostly asthenopic) patients. A high positive correlation was noted between objective and subjective evidence of accommodation fatigue. Recession of the near point of accommodation under reduced oxygen was found in 45% of the physically qualified and in 64% of the disqualified aviators.—C. W. Darrow (Behavior Research Fund, Chicago).

4643. Blakeslee, A. F., & Fox, A. L. Our different taste worlds. *J. Hered.*, 1932, 23, 97-110.—Experiments undertaken with phenyl-thio-carbamide (P.T.C.) revealed that this compound is tasteless to 28% of the population, bitter to 65.5%, sour to 2.3%, and has some other taste to 4.2%. Genetic charts show "non-tasting" to be inherited as a Mendelian recessive. Taste acuteness forms a bimodal curve, even "non-tasters" being stimulated by a sufficiently concentrated solution. Several other compounds have also been found to distinguish between tasters and non-tasters. A leaflet has been prepared for distribution by the American Genetics Association containing a P.T.C. sample and genetic chart.—B. S. Burks (Stanford).

4644. Bonaventura, E. La parallasse binoculare e il suo significato nella percezione dello spazio. (Binocular parallax and its significance in space perception.) Florence: Stab. Tip. Bandetini, 1931. Pp. 23.—Having defined the concept of parallax and emphasized the importance which ought to be attached

to binocular parallax (as differentiated from monocular parallax) for space perception, the author reports on the studies of Helmholtz and Bourdon on stereoscopic acuity (which, according to the authors, give results corresponding to monocular visual acuity), and the *querdissipation* theory of Hering; and says that the observations (and even more the calculations of Bourdon) and theories relative to binocular parallax in the perception of distances overlook the qualitative differences which appear in viewing objects with displacement, and come to a standstill at a consideration of the quantitative side of the facts. With a purview which permits isolating the factor of angular difference and leaving out modifications of form, size, luminosity, etc. (conditions not observed in the studies of the authors cited), it is found that stereoscopic acuity is completely annulled. Differences of 30 cm. (from 1 m. to 1.30 m.; from 1.50 m. to 1.80 m.) were not perceived. It must be concluded that there is no threshold of stereoscopic acuity under these conditions; and that binocular parallax, conceived as a purely quantitative factor, gives no perception of distance. This fact has been established with surfaces of different colors; but when there is added to the surfaces a point, a line or a symbol, one has the perception of difference in distances. Pseudoscopic experiments, which show that the reversal of the relief is verified only if there is the logical possibility of seeing the reversed image, confirms the importance of qualitative considerations in stereoscopic perception. In his conclusions the author advances the opinion that the perception of distance has its basis in experience and in the simultaneous action of several factors such as binocular parallax, convergence, accommodation, linear or aerial perspective, etc.; but that it cannot be attributed to any of these factors separately, and that the genetic point of view is the only one which can lead to the understanding of the facts of spatial perception.—R. Calabresi (Rome).

4645. Bromberg, W., & Schilder, P. On tactile imagination and tactile after-effects. *J. Nerv. & Ment. Dis.*, 1932, 76, 133-155.—The remainder of the cases are cited (see VI: 3857). In summarizing; tactual images, though having both objective and subjective parts, may be without the subjective part, particularly if the objective images are strong. The optic picture of the touched area is often vague and rather symbolic. Imagined sensations are partly on the skin and under it. Turning makes more apparent the dissociation between the optic and tactual imagination. Tactual subjective imagination tends strongly to irradiate to remote parts of the body. These general rules are valid for any area of skin on the body. In tactual imagination there is a quality of movement, often of rhythmic character. Vestibular irritation increases tendency of movement. Several simultaneous imaginations of touches form a unit. In the imagination of lines and geometric figures parts of lines disappear. There is a distinct tendency towards curving of lines. Spontaneous multiplication of tactual images occurs less frequently than in optic

images. Slight touches have a distinct after-effect lasting roughly up to three minutes, independent of the optic images; the foreground is more sharply produced, and the effects on vestibular irritation are increased.—*C. R. Atwell* (Boston Psychopathic Hospital).

4646. Carleton, E. H., & Madigan, L. F. Size and shape of ocular images. II. Clinical significance. *Arch. Ophthalm.*, 1932, 7, 720-738.—In a clinical application of the findings of Ames and Ogle, which have already appeared in Part I of this series, the present authors found that (1) differences in the size of ocular images of the two eyes may exist without causing discomfort, when differences are slight; (2) differences in size of ocular images with discomfort are found in persons of all ages with emmetropia, all types of refractive errors, orthophoria, and all types of heterophoria; (3) symptoms are of two types: those of a general type, such as headache and stomach disorder, and those of a localized ocular type, such as tiring, burning, tension, etc.; (4) correction of size differences apparently brought complete relief in 20% of such cases, partial relief in 60%, and no relief in 20%.—*E. H. Kemp* (Clark).

4647. Chance, B. Monochromatic vision. *Amer. J. Ophthalm.*, 1931, 14, 415-425.—The literature is reviewed. It is suggested that achromatopsia should not be regarded as a division of color blindness. In the reported cases of achromatopsia it seems not unlikely that the chromosomes of both parents have been affected. The patient is sometimes rendered more comfortable by wearing dark glasses.—*C. W. Darrow* (Behavior Research Fund, Chicago).

4648. Cochran, M. Kinesthesia and the piano. *Austral. J. Psychol.*, 1930, 8, 205-209.—The senses most concerned in the study of piano are the following: kinesthesia, the sense of time, the sense of rhythm, sight, and hearing. Although normally endowed subjects seem to make use principally of the last two senses, the example of the deaf mutes Helen Keller and Helen Martin, who have achieved remarkable results, gives an indication of the importance of kinesthesia. Experiments performed on very young children have shown that kinesthesia is the most precocious sense and the most educable. The author thinks that much can be done in this line to facilitate the study of piano in very young children.—*A. B. Hunter* (Clark).

4649. Creed, E. S. The after-image of black. *J. Physiol.*, 1931, 73, 247-266.—The white after-image of a black hole on a white background was found to develop in some 12 seconds after 2-3 seconds of exposure. It is proved mathematically that no substances set free photochemically can have produced the after-image by diffusion, due to complete incompatibilities of the orders of magnitude of the necessary rate of diffusion and the experimental data. Under certain conditions the after-image of a small black hole is greenish in color. It is suggested that blood pigment may be responsible for this complementary color. A review of the possible causes of after-images is presented, and it is concluded that either the absence of luminous flux may in some circumstances

have a direct excitatory effect on the retina, or that interaction between illuminated and unilluminated areas (or between afferent paths connected with them) may account for the phenomenon.—*H. Hoagland* (Clark).

4650. Danielson, R. W. Some theoretical and practical points regarding unilateral voluntary winking. *Amer. J. Ophthalm.*, 1932, 15, 611-617.—A difference in facility of voluntarily winking the respective eyes is often noted. The eye with the poorer vision generally shows the better voluntary control.—*C. W. Darrow* (Behavior Research Fund, Chicago).

4651. Day, P. L., Langston, W. C., & O'Brien, C. S. Cataract and other ocular changes in vitamin G deficiency. *Amer. J. Ophthalm.*, 1931, 14, 1005-1009.—Bilateral cataracts developed within 60 to 87 days in all but 3 of 37 surviving rats on a vitamin G-deficient diet.—*C. W. Darrow* (Behavior Research Fund, Chicago).

4652. Delaney, J. H. The light sense tested by the photometric glasses of Tscherning. *Amer. J. Ophthalm.*, 1930, 13, 1058-1063.—Tscherning's light-tight spectacle frame with graded filters was used to study variations in the "light minimum." Observations are made on pathological conditions.—*C. W. Darrow* (Behavior Research Fund, Chicago).

4653. Di Giorgio, A. M. Ricerche intorno alla influenza di eccitamenti nervosi propriocettivi sulle localizzazioni spaziali visive. (Studies on the influence of the proprioceptive stimuli on visual localizations.) *Boll. della Soc. ital. di biol. sper.*, 1931, 6, 551-556.—According to the author one obtains the correct interpretation of the image when the inclination of the visual plane to the horizontal plane is equal to the inclination of the photographic objective. This interpretation is in relation to the stimuli, which are confined to the positions determined by the ocular bulb in relation to the orbit.—*R. Calabresi* (Rome).

4654. El-Tarouti, M. Untersuchungen über das Zustandekommen der räumlichen Wahrnehmungen. (Studies on the establishment of spatial perceptions.) *Zsch. f. Sinnesphysiol.*, 1930, 61, 194-207.—The report deals with two short studies carried out in Asher's Berne laboratory. In the first study, the subject had to adjust in the same plane five threads viewed through a black tube at a distance of 1.30 meters. He then had to perform the same task while looking at the threads through a tube which magnified them three times. The angular values remained the same, a condition which caused the author to conclude that the spatial value of retinal points remains stable. In the second study the subject had to arrange two lines in relation to a central line in the left monocular field in such a way that the three would appear in the same plane as three other similar lines which were in the right monocular field. When the lines were shown against a geometric figure seen in relief, the accuracy of adjustment was decidedly greater than when they were placed against a plane surface. Therefore, the author concludes that the field exercises an influence on spatial perception.—*A. B. Hunter* (Clark).



4655. Fedorow, N. T., & Fedorowa, V. J. Beitrag zur Kinetik der künstlichen Protanopie. (Contribution to the kinetics of artificial protanopia.) *Zsch. f. Physik*, 1930, 62, 834-841.—After intense fatigue to red, the eye presents certain protanopic characteristics from the point of view of the distribution of spectral light. During this temporary protanopia, which lasts about one minute, Rayleigh's equations show an annulment of the red light, yellow at 589 being judged the same as green at 550. The gradual return of Rayleigh's normal equation permits a quantitative interpretation in terms of variations in the ionic concentration according to Lasarev's general schema. During the course of 40 experiments carried out on each other, the authors found that the form of the recuperation curve for sensitivity to red after fatigue was somewhat different when the experiment was begun again after an hour's interval of rest. Although the total duration of recuperation was not modified, the return was decidedly slowed up in the beginning and then accelerated later to the point where it had previously died out in the initial experiment, a condition which is attributed to the persistence of decomposition products of the substance sensitive to red. The experimental results expressed by the two curves are compared with Lasarev's formulae, one of which is based on the hypothesis of monomolecular action and the other on bimolecular action, appropriate constants being used. Both formulae are shown to be equally satisfactory for the second experiment curve and nearly as satisfactory for the first (the bimolecular formula being adjusted somewhat by the use of five constants instead of three). Between the two chemical theories no preference can be made from the results of the authors' experiments.—A. B. Hunter (Clark).

4656. Feigenbaum, A. Reflex transmission of stimuli from one eye to the other. The "dark-light test" following neurectomy. *Arch. Ophth.*, 1931, 5, 261-268.—(*Biol. Abst.* VI: 15945).

4657. Felderman, L., & Dyson, J. M. Tinnitus aurium: amelioration by intraspinal injections of glucose. *Eye, Ear, Nose & Throat Mo.*, 1929, 8, 439-442.—(*Biol. Abst.* VI: 15946).

4658. Ferree, C. E., & Rand, G. The effect of relation to background on the size and shape of the form field for stimuli of different sizes. *Amer. J. Ophth.*, 1931, 14, 1018-1029.—A further study of the factors that affect the size and shape of the form field is here reported. In this case two variables only were permitted, namely, size of stimulus and relation of stimulus to background in regard to brightness. It is shown that variation in brightness difference affects the size of the field more with small stimuli than with large. Some of the causes of error due to improper methods in taking fields are discussed.—C. W. Darrow (Behavior Research Fund, Chicago).

4659. Ferree, C. E., Rand, G., & Hardy, C. Refractive asymmetry in the temporal and nasal halves of the visual field. *Amer. J. Ophth.*, 1932, 15, 513-526.—This paper is a further study of the refraction in the peripheral field of vision. Objective methods

by means of a Zeiss refractionometer were employed. Three types of eyes in regard to peripheral refraction were noted. The present report concerns type C, in which a considerable difference was found between the nasal and temporal halves of the field.—C. W. Darrow (Behavior Research Fund, Chicago).

4660. Ferree, C. E., Rand, G., & Wentworth, H. A. The influence of brightness of surrounding field or background on the size and shape of the blind spot for color. *Amer. J. Ophth.*, 1930, 13, 690-698.—The distance of the center of the blind spot from the center of the field of vision for the achromatic and chromatic stimuli averaged 16.5 degrees and ranged from 14.5 to 17.5 degrees. The blind spot was larger for a black test object on a white field than for a white test object on a black field. The blind spots for chromatic stimuli were all much larger than for achromatic stimuli. Other findings relate to variations in size of the blind spot for different colors as seen upon backgrounds of varying brightness. As to satisfactory technique, gray of the brightness of the color as background gave the best and white the worst results.—C. W. Darrow (Behavior Research Fund, Chicago).

4661. Ferree, C. E., Rand, G., & Monroe, M. M. Studies in perimetry. 4. Preliminary work on a diagnostic scale for the form field with a 0.17 degree stimulus. *Amer. J. Ophth.*, 1930, 13, 859-867.—Using a stimulus subtending a visual angle of 0.17 degree, the reduction in the field as compared with that obtained for a one-degree stimulus was greater for the presbyopic group of subjects and less (in the order named) for the myopic, hyperopic, and emmetropic groups. The shape of the field obtained for the 0.17-degree stimulus differed from that obtained with the larger stimulus, the reduction being greater on the temporal side. A greater range of scatter was obtained in the results with the 0.17-degree stimulus, and this fact may render of little or no value the use of the smaller stimulus for refinement of diagnosis based on size of field.—C. W. Darrow (Behavior Research Fund, Chicago).

4662. Fischer, E. P., & Hofe, K. v. Ueber die elektrische Erregbarkeit des menschlichen Auges während der Helladaptation. (On the electrical excitability of the human eye during light adaptation.) *Arch. f. Augenhk.*, 1932, 105, 443-452.—In 1929 Achelis and Merkulow found that the electrical threshold rose during dark adaptation; instrumental limitations prevented their performing the indicated parallel experiment under light adaptation. This was the point of departure of the present investigators. They made chronaxie determinations with a rheobase at the just perceptible phosphene, using the technique of Achelis and Merkulow. The subjects adapted under illumination intensities ranging from 100 to 3000 lux, using the sphere-adaptometer invented by Hertel several years before. This experiment under light adaptation, using two subjects, showed a rise of the electrical threshold. Thus, while light thresholds rose and fell with light or dark adaptation respectively, electrical thresholds rose anyway. Perhaps the electrical threshold is independent of

some retinal process, like regeneration of the retinal purple, which does affect sensitivity to light stimulation.—S. M. Newhall (Yale).

4663. Freeman, E., & Hamilton, W. F. The blue excitation curve of dichromats. *Amer. J. Physiol.*, 1932, 101, 686-689.—"Considerations of color mixture and of wave length discrimination in two types of dichromats indicate, as do the data for the normal eye, that the blue excitation curve should not extend above the region of 517  $\mu$ ."—C. Landis (New York Psychiatric Institute).

4664. Fry, W. E. Congenital total color blindness. *Amer. J. Ophthalm.*, 1930, 13, 1064-1065.—This is the eighth case reported in this country, the total number in the literature being about 125. Photophobia or dazzling is frequently the chief complaint. In the present case the main difficulty was day blindness without pain or ocular discomfort.—C. W. Darrow (Behavior Research Fund, Chicago).

4665. Galli, A. Sopra la percezione di movimenti apparenti prodotti con stimoli sensoriali diversi. (Concerning the perception of apparent movements produced with different sensory stimuli.) *Atti Soc. ital. prog. sci., XX riunione*, 1932, 2, 417-418.—See VI: 4666.—R. Calabresi (Rome).

4666. Galli, A. Ueber mittelst verschiedener Sinnesreize erweckte Wahrnehmung von Scheinbewegungen. (On apparent movement produced by various sensory stimuli.) *Arch. f. d. ges. Psychol.*, 1932, 85, 137-180.—The investigator determined with two visual and two tactile stimuli the optimum temporal and spatial conditions for evoking the illusion of movement. Visual, tactile and auditory stimuli were then presented in various combinations to ten subjects. The results are as follows: (1) Identical or different sensory stimuli are perceived as separated when the time intervals between them are too long, or the distance from the subject is too great to permit a relationship to be established between them. (2) When the stimuli are presented in rapid sequence they appear simultaneous. (3) At an optimum point in temporal, as also in spatial relations, apparent movement is produced. The stages in this apparent movement are outlined. (4) One stimulus of a sequence appears to act as carrier of the movement. In sequences of various sensory stimuli, the visual stimulus assumes this rôle—in the absence of the visual, the tactile stimulus. Although the stimuli sequences under optimum conditions are perceived as a unified whole, the author does not lean toward a Gestalt interpretation.—J. L. Jervis (Yale).

4667. Holzlohnner, E., & Stein, W. H. Ueber den gesteigerten farbigen Simultankontrast der anomalen Trichromaten. (On the increase in simultaneous color contrast in cases of abnormal trichromatism.) *Zsch. f. Sinnesphysiol.*, 1930, 61, 209-224.—The authors determined the amount of normal contrast in the following manner: a yellow region lighted by spectral light, which gave the impression of pure yellow (585.5 or 581  $\mu$  for two normal subjects), was placed next to a red or a green region (670 or 525  $\mu$ ), the yellow being thus modified by

contrast. It was found necessary to change the yellow wave length in the direction of orange in the first case and toward the green in the second in order to restore pure yellow for the observer (the normal shift being on the average about 3  $\mu$ ). Then a study was made of seven deuteranopes and two protanopes. For the first group, five showed an increase in the contrasting influence of red, while two showed no increase of this nature. No systematic differences could be found. Apparently a central action takes place under these conditions, for the contrasting action was exhibited binocularly, the yellow field being seen with one eye and the red or green with the other. Only one of the protanopes showed an increased contrast with the use of green, though both of them gave a paradoxical reaction for red. Also one of them gave this same paradoxical variation for green. The data are not homogeneous, and no definite conclusions can be drawn.—A. B. Hunter (Clark).

4668. Hosoya, Y. Fluoreszenz der einzelnen Augenmedien und Sichtbarkeit des ultravioletten Gebietes des Spektrums. (Fluorescence of the separate ocular media and visibility of the ultraviolet region of the spectrum.) *Tohoku J. Exper. Med.*, 1929, 13, 524-538.—(*Biol. Abst.* VI: 13132).

4669. Iwatake, H. On the variation of the sense threshold caused by a change in the surrounding temperature. *J. Oriental Med.*, 1931, 14, 49.—(*Biol. Abst.* VI: 15950).

4670. Jaensch, E., & Wiegand, F. Die Beziehung von Kontrast und Transformation. (The relationship between contrast and transformation.) *Arch. f. d. ges. Psychol.*, 1932, 85, 95-136.—The authors present an experimental and critical investigation, with particular reference to the theories and objections of other investigators. An experimental method was devised presenting the phenomenon of transformation-brightening; complete absence of transformation effect; and transformation-darkening. The results are discussed in detail from the point of view mentioned above.—J. L. Jervis (Yale).

4671. Jennings, J. E. Evaluation of pseudo-isochromatic tests for the detection of color blindness. *Amer. J. Ophthalm.*, 1931, 14, 952-958.—The Nagel, Edridge-Green, Stilling, and Ishihara color-blindness tests are compared in a study of 20 color-blind cases, with tabular presentation of results. The Nagel test is objectionable because it requires the use of color names. The Edridge-Green test is satisfactory for the detection of red-green blindness, although the letters are found more difficult to read than numbers. The Ishihara test may be committed to memory. Stilling's test is preferred for the detection of red-green blindness. Since lower grades of color blindness may be overlooked, it is recommended that at least three tests be used in all cases.—C. W. Darrow (Behavior Research Fund, Chicago).

4672. Kiesow, F. Ueber die Entstehung der Braunempfindung. (On the nature of the sensation of brown.) *Neue psychol. Stud.*, 1930, 6, 119-130.—Kiesow discusses the origin of Oesterreich's "secondary green" which appears in brown when

yellow is darkened. This brown cannot be duplicated in the yellow-black line on the color cones. The green, which Kiesow calls a product of mental synthesis, is due to the green components in the yellow pigments. When it is neutralized in the yellow by the addition of red in the color discs (a condition which is equivalent to the use of yellow-orange), very pure browns are obtainable upon darkening the discs. But the brown itself is a product of a mental synthesis, since it does not appear in the spectral colors. The difficulties encountered are especially apparent for conditions involving reflective chroma, that is, for conditions involving perceptive qualities obtained from surfaces of objects and not elementary chromatic qualities.—A. B. Hunter (Clark).

4673. Kravitz, D. The value of quadrant field defects in the localization of temporal lobe tumors. *Amer. J. Ophthalm.*, 1931, 14, 781-785.—Discussion of the literature and of a case.—C. W. Darrow (Behavior Research Fund, Chicago).

4674. Kunze, J. Perkussionsleistungen Gehörloser. (Percussion performances of the deaf.) *Zsch. f. Psychol.*, 1932, 125, 289-293.—The results obtained from an experiment carried out with deaf-mute pupils, based on a purely vibratory percussion, prove further that percussion can be perceived by the sense of vibration alone.—E. Johns (New York City).

4675. Lancaster, W. B. Ocular symptoms of faulty illumination. *Amer. J. Ophthalm.*, 1932, 15, 783-788.—Considers insufficient light, exposed light sources, reflection, and excessive concentration of illumination as causes of eye strain. Excessive effort to gain greater precision in fixation and focusing are causes of "strain" under faulty illumination.—C. W. Darrow (Behavior Research Fund, Chicago).

4676. Levinsohn, G. Zum experimentellen Nachweis der Myopiegenese. (Experimental data concerning the genesis of myopia.) *Arch. f. Augenheilk.*, 1932, 105, 552-567.—The author criticizes the findings and negative interpretations of O. Marchesani with respect to the gravity theory of myopia. (The theory is that gravitational pull may elongate the eyeball gradually and so develop myopia.) Levinsohn presents summarized data, including his own. The following article contains Marchesani's rejoinder.—S. M. Newhall (Yale).

4677. Lewis, W. W. Presbyopia, the bugbear. *Amer. J. Ophthalm.*, 1930, 13, 806-808.—The writer holds that the early wearing of full hyperopic correction favors the early onset of presbyopia.—C. W. Darrow (Behavior Research Fund, Chicago).

4678. Lillie, W. J. Homonymous hemianopia primary sign of tumors involving lateral part of transverse fissure. *Amer. J. Ophthalm.*, 1930, 13, 13-20.—Out of 13 cases of tumor of the basal ganglia 2 showed as early symptoms clear-cut homonymous hemianopia for color and form. At necropsy these cases revealed involvement of the optic tract in the lateral part of the roof of the transverse fissure. 7 figures, 8 references.—C. W. Darrow (Behavior Research Fund, Chicago).

4679. Luckiesh, M., & Moss, F. K. Researches in seeing. *Amer. J. Ophthalm.*, 1932, 15, 801-815.—Some of the high lights of extensive researches at the Nela Park laboratories of the General Electric Company, showing that artificial illumination is usually inadequate and should be increased, and that daylight should be approximated as nearly as possible.—C. W. Darrow (Behavior Research Fund, Chicago).

4680. Matsuda, A. Untersuchungen zur optischen Raumwahrnehmung. (Studies on the optical perception of space.) *Zsch. f. Sinnesphysiol.*, 1930, 61, 225-246.—Under the direction of Trendelenburg, the author performed certain experiments for conditions of darkness which had previously been performed for diurnal vision. Using feeble illuminations which were below the foveal threshold, he verified the finding that the processes of spatial perception are identical in rod and in cone vision. A second study dealt with the relations of the image of a point to its actual spatial position (distance from the eye) in stereoscopic vision. For a distance corresponding to a convenient distance for binocular vision, approximately 30 cm., the two points coincided. Below and beyond this distance, the point corresponding to the spatial impression was much nearer than the real point, the distances in respect to the eye being over- or underestimated.—A. B. Hunter (Clark).

4681. Miles, W. E., & Beaumont, H. Monocular testing of the color blind. *Amer. J. Ophthalm.*, 1931, 14, 636-639.—Unilateral color blindness, or a distinct difference as to color vision between the two eyes, is rather infrequently mentioned in the literature, and apparently it is the general custom to test both eyes together for color vision. One case of monocular color blindness was discovered by the authors in the testing of 23 persons. The Ishihara plates for testing color vision are particularly valuable, and give lower ratings than the Stilling plates, because the former contain hidden numbers.—C. W. Darrow (Behavior Research Fund, Chicago).

4682. Monjé, M. Die gegenseitige Beeinflussung der durch zwei kurzdauernde Lichtreize hervorgerufenen Empfindungen. (The reciprocal influence of sensations caused by two brief light stimulations.) *Zsch. f. Biol.*, 1930, 90, 557-573.—By a comparison of sensations produced independently and following each other at varying intervals, the author determined the modifications due to this juxtaposition through the use of Fröhlich's movable slits. The duration of the first sensation was only slightly modified, and its latency was not changed, but the latency of the second was clearly shortened for weak stimulations and increased for intense ones. Therefore, there are certain secondary actions of the first stimulation which can either aid the second through the process of summation or weaken it through the process of adaptation, which diminishes the sensitivity.—A. B. Hunter (Clark).

4683. Morton, H. M. Hypothesis regarding so-called amblyopia ex anopsia. *Amer. J. Ophthalm.*, 1931, 14, 239-244.—The author takes the view that the term "amblyopia ex anopsia" is a misnomer, that the eyes to which it is applied are congenitally



amblyopic through defects related to structural and functional neurology, with imperfect macular or sometimes paramacular vision, so that the amblyopia is really the cause of disuse and not its consequence.—*C. W. Darrow* (Behavior Research Fund, Chicago).

4684. Nyssen, R. *L'influence de la douleur sur la pression artérielle chez l'homme*. The influence of pain on arterial pressure in man.) *J. de neur. et de psychiat.*, 1931, 31, 205-280.—Prefacing his article with a survey of the work of other investigators in regard to the subject under discussion, the author presents in detail the results of experiments made to test arterial pressure in artificially produced pain, and compares these results with the action of pain due to pathological processes. In contrast to other writers, the author states that the sex of the test person did not seem to affect the results. Any kind of physical pain may considerably increase the arterial pressure. This increase of pressure is not a local but a generalized reaction. The increase of the diastolic pressure is of the same importance as that of the systolic pressure, except in arterial sclerosis, where the increase of the systolic is more significant than that of the diastolic pressure. Even though painless sensory excitations may produce an increase of blood pressure, experiments have shown that pain has an independent influence, reinforcing the sympathicotonic action which is caused by the pain sensation. The problem of the exact relation between the intensity of the painful excitation and that of the arterio-tensional reaction is very complex; the facts known at present tend to show that the rise of arterial pressure corresponds in general to the intensity of the algogenous excitation. Pain stimuli on regions which are analgetic due to an interruption of afferent peripheral and medullary pathways are not followed by an increased blood pressure. In cat and dog the arterio-tensional reaction to painful stimuli takes place in spite of general anesthesia or decerebration. In human beings the rise in blood pressure due to pain may occur without the participation of the nervous centers that mediate conscious sensation, though the conscious perception of the pain tends to reinforce the infra-thalamic tensional reflex through the hypertensional influence of emotional excitation. Undoubtedly we have to deal with an infra-cortical and possibly infra-thalamic reflex. A psychic pain, whether imagined or hallucinated, may raise the arterial pressure although probably not to the same degree as real pain. A bibliography of 208 titles is given.—*H. Syz* (New York City).

4685. O'Brien, C. S., & Salit, P. W. The chemical constituents of the aqueous, vitreous, and lens. A comparative study on animal eyes. *Amer. J. Ophthalm.*, 1931, 14, 582-589.—*C. W. Darrow* (Behavior Research Fund, Chicago).

4686. Ovio, G. *Influenza del nero sulla visione*. (The influence of black on vision.) *Ann. di Ottal.*, 1929, 57, 1-11.—Absolute black does not exist for Ovio; the color so-called differs from relative black by about one-sixtieth (a condition which approximates the limit of the differential threshold). There is a practical identification of the two, however, rela-

tive black playing the rôle of absolute black in the matter of acuity of vision. The lowering of visual acuity caused by a diminishing of illumination may be explained by modifications in the relations of black, which is not noticeably changed, and of white, which is greatly affected.—*A. B. Hunter* (Clark).

4687. Perkins, F. T. Symmetry in visual recall. *Amer. J. Psychol.*, 1932, 44, 473-490.—Simple, non-symmetrical geometric figures were used to investigate progressive changes in visual recall. Reproductions of the stimuli were obtained from 150 observers at intervals up to 19 days after presentation. Changes in figures by the observers were classified into the following types: equalization, orientation, standard figures, simplification, complication, completion, proportional relations, bilateral symmetry, and whole symmetry. All types of change tended toward balance or symmetry of some kind. The greatest percentage of change occurred on the first reproduction. Specific changes appearing early were continued progressively throughout the series. Results are graphically presented. In conclusion, the importance for memory theory of the dynamics of mental continuity is emphasized.—*M. N. Crook* (University of California at Los Angeles).

4688. Poos, F. *Der Anteil der beiden Antagonisten an der Pupillenbewegung bei den verschiedenen Reaktionen*. (The action of the two antagonistic muscles in pupillary movements in different reactions.) *Arch. f. Ophthalm.*, 1930, 125, 308-312.—Poos concludes from his experiments *in vitro* (cf. Behr's criticisms in the same journal) that there is no pupillary dilation without relaxation of the sphincter and that pure contraction of the sphincter takes place when the iris narrows. He thus supposes a twofold innervation of this muscle, which is excited by the parasympathetic and inhibited by the sympathetic. Behr states that the experiments made on the living iris do not verify in any way this specialized rôle of the sphincter. Poos, while admitting Behr's criticisms in general, denies that there is any value to be gained from the latter's experiments on his pathological case where the condition of the membranes, claimed to be independent of each other, is so poorly described.—*A. B. Hunter* (Clark).

4689. Rowe, A. W., & Drury, D. W. Vital function studies. IX. Failure of hearing in the young: a study of a rural community. *J. Amer. Med. Assn.*, 1932, 98, 1539-1542.—A study was made of the auditory acuity of 2,078 pupils selected from 18 schools. The initial examination was made with the aid of a 4-A audiometer. On this initial test 590 gave evidence of some impairment of hearing power. The next phase of the study consisted in a careful ear, nose, and throat examination for each of the 590 children. A more elaborate instrumentation, a 2-A audiometer, was used and the threshold of hearing accurately determined for each frequency. This examination showed 276 (13.3%) to have hearing defect of a magnitude to warrant report. 230 of these children were given mental tests and 50 of this group gave evidence of a lowered mental acuity. Only 50% of the group of 276 had reported trouble with the

ears as the chief complaint. Since this study was made of a large representative grouping of school children the prevalence of hearing defects indicated is of considerable social and educational significance.—D. J. Ingle (Minnesota).

4690. Rowland, W. D., & Rowe, A. W. Concentric contraction of the visual fields. *Amer. J. Ophth.*, 1930, 13, 413-422.—An analysis of the pathological conditions in 100 cases.—C. W. Darrow (Behavior Research Fund, Chicago).

4691. Russell, A. E. Abdominal discomfort. *Lancet*, 1931, 221, 1391-1394.—Recent experimental findings are pointing back to the old view that visceral pain does exist and is not merely referred pain. Experimental studies on the sensibility of the alimentary canal are described. The nature and causes of abdominal pain are discussed from the standpoint of the clinician.—D. J. Ingle (Minnesota).

4692. Samanta, M. Visual perception of areas. *Indian J. Psychol.*, 1932, 7, 67-74.—The limens, both upper and lower, of perceptual difference in the comparison of a circle and a square of constant area with other squares of varying areas were found by one of the psychophysical methods (gradation) and by the full series method of Kirschmann. Results obtained by the two methods showed little difference, and although few subjects were used, the author concludes that the full series method may be used with profit instead of the more tedious and inconvenient gradation method.—E. H. Kemp (Clark).

4693. Scarlett, H. W. Senile macular changes of the retina associated with focal infection. *Amer. J. Ophth.*, 1931, 14, 932-935.—A review of literature and study of four cases.—C. W. Darrow (Behavior Research Fund, Chicago).

4694. Shannon, C. E. G., & Edgerton, A. E. A case of hemiachromatopsia. *Amer. J. Ophth.*, 1931, 14, 41-43.—A slight homonymous hemianopsia for green, red, and blue, with normal form field, is studied in a case of severe arteriosclerosis with kidney involvement.—C. W. Darrow (Behavior Research Fund, Chicago).

4695. Steinhaus, H. Untersuchungen über den Zusammenhang von Presbyopie und Lebensdauer, unter Berücksichtigung der Todesursachen. (Study of the relationship between presbyopia and length of life, taking into consideration the causes of death.) *Arch. f. Augenhk.*, 1932, 105, 731-760.—This study, based on over 2200 cases, evidences a close relation between degree of presbyopia and life-expectation. The hardening of the lens proves to be a good measure of the degree of senility of the vital organs and therefore of the life-span remaining. As one might expect, the relation is closest in cases where death is "natural" rather than accidental. Women average about the same as men in presbyopia; therefore their greater life-expectancy is probably not due to lower senility but rather to more favorable living conditions.—S. M. Newhall (Yale).

4696. Symonds, C. P. The physiology of painful sensation, in relation to some clinical problems in neurology. *Lancet*, 1931, 221, 723-726.—Patholog-

ical lesions occurring at any level of the afferent pathway may give rise to pain sensations. The author discusses as examples the syndromes caused by lesions in the peripheral nerves, the posterior root, the cord, the brain stem, and the thalamus. The experiments and theories of Head and Rivers, and of Trotter and Davies are described. The author agrees with Trotter and Davies that the epicritic-protopathic theory of Head and Rivers is untenable. The hypothesis suggested by Trotter and Davies that the changes in sensation observed after the nerve is cut are due to pathological conditions in the nerve-fibers themselves is supported by clinical observations and by Adrian's study on action currents in afferent nerves after section.—D. J. Ingle (Minnesota).

4697. Wentworth, H. A. Variations of the normal blind spot with special reference to the formation of a diagnostic scale. I. The form blind spot. *Amer. J. Ophth.*, 1931, 14, 889-904.—A study of the blind spots of 200 normal persons is made under conditions standardized as to illumination, size of test object, light adaptation and method of mapping. Results are recorded and tabulated according to area and position. The areas varied from 6.8 sq. cm. to 17.5 sq. cm., the average being 11.4 sq. cm. at 33 cm. from the eye, using a one-degree test object. The average size was found to increase somewhat with age. The distribution curve rather than the average size is regarded as of most significance as a standard for diagnostic comparisons. The author feels that the series is too small for generalization.—C. W. Darrow (Behavior Research Fund, Chicago).

4698. Wentworth, H. A. Variations in the normal blind spot with special reference to the formation of a diagnostic scale. II. The color blind spot. *Amer. J. Ophth.*, 1931, 14, 1118-1131.—The author gives the results of a series of careful measurements of the area of the blind spot, using blue, red, and green stimuli. The same subjects were used as in the previously reported measurements using form stimuli. The results show an increase in the average area of the blind spot for colored stimuli, in the order named, of 33%, 58%, and 98% over the average size for form stimuli.—C. W. Darrow (Behavior Research Fund, Chicago).

4699. Werner, H. Untersuchung über Empfindung und Empfinden. 4. Das optische Verschmelzen in seiner Abhängigkeit von heteromodaler Reizung. (Research in the field of sensation. 4. Optic fusion as dependent on heteromodal stimulation.) *Zsch. f. Psychol.*, 1932, 125, 249-289.—This work was carried out by Paul von Schiller and edited by Heinz Werner. The assertion that phenomena in one sensory field are influenced by stimuli of another field has been considered by only a small group. The experiment with a constantly rotating Talbot disk has shown that the impression of fusion changes, if during the observation acoustic, tactile, or vibratory stimuli are present. If the fusion is intense, the disk stands still, and a harsh sound is heard; then the disk shimmers and appears to tremble. This shimmering, however, stops as soon as harmonious sound or a smooth tactile stimulus is perceived by the person

under experiment. These phenomena take place only when the non-optic stimulus produces a "perception" intensely sensed by the individual. It is assumed that this effect, produced by such a stimulus as used in this experiment, manifests itself electro-chemically indirectly in other unrelated parts of the central nervous system also.—*E. Johns* (New York City).

4700. Wolfe, O. Notes on muscle and fusion training and orthoptic treatment of anomalies. *Amer. J. Ophth.*, 1932, 15, 618-626.—Benefit is claimed in a wide range of ocular anomalies.—*C. W. Darrow* (Behavior Research Fund, Chicago).

[See also abstracts 4704, 4724, 4733, 4755, 4759, 4776, 4788, 4964.]

#### FEELING AND EMOTION

[See abstracts 4737, 4973.]

#### ATTENTION, MEMORY AND THOUGHT

4701. Barr, A. S. A Study of the amount of agreement found in the results of four experimenters employing the same experimental technique in a study of the effects of visual and auditory stimulation in learning. *J. Educ. Res.*, 1932, 26, 35-45.—Four experimenters each worked with 16 subjects from the freshman class of the University of Wisconsin, the University of Wisconsin High School, or two nearby rural high schools. Two lists of 10 nonsense syllables each were used as learning material, as well as two lists of 15 pairs of words to be used by the method of paired associates. The results indicate that all four experimenters working under similar conditions secured similar results.—*S. W. Fernberger* (Pennsylvania).

4702. Bonaventura, E. La fatica nel lavoro mentale. (Fatigue in mental work.) *Atti Soc. ital. prog. sci.*, XX riunione, 1932, 2, 378-383.—The author mentions the inadequacies of the studies which have been done in this field. He notes that the tests of Kraepelin, even as modified, represent a very simple form of mental work, incomparable with ergographic work, which is more fatiguing than all habitual muscular work; and that automatism and exercise annul the action of fatigue in the tests used. He states that in order to study the mental work curve it is necessary to choose a task which is difficult enough to produce fatigue in a relatively short time but which is adapted to the average culture; which presents different problems all the time (in order to avoid automatism) but always problems of uniform difficulty to make it possible to evaluate the results of each work period). He believes it to be impossible to remove completely from mental work every muscular factor, and every effort of attention, voluntary effort, etc., from physical work, but he believes it possible to find tasks which are equivalent from the point of view of physical fatigue but which nevertheless exhibit very different intellectual difficulties; for example, oral reading in the native language and in a foreign language.—*R. Calabresi* (Rome).

4703. Crile, G. W. An electro-chemical interpretation of memory. *Proc. Amer. Phil. Soc.*, 1930, 69, 359-369.—(*Biol. Abst.* VI: 10045).

4704. Kratina, F. Die eidetische Anlage bei Jugendlichen: eine psychologische Studie. (The eidetic characteristics of adolescents; a psychological study.) Prague: Orbis-Verlag, 1930. Pp. 166. Kč. 25.—These studies were made on pupils in the Czech Realgymnasium at Olmütz, using chiefly the familiar Munich collection of pictures. These were shown for 18-20 seconds, intermittently, to prevent the pupils fixating on them. The scholars then closed their eyes and reported what came before their minds. Afterward, they looked at a gray paper in order to determine the presence of images with open eyes. Voluntarily produced and spontaneously appearing images were studied. In regard to the latter, it was difficult to get complete and satisfactory information. After-images were studied independently. The results showed 54% of eidetics, with the peak at the fifteenth year, i.e., around puberty. Taking these results in connection with those of Rössler, which showed a maximum at 6 years among children in the folk schools, the curve would have two peaks. According to richness of content, Kratina distinguishes three grades of eidetic Anlagen: complicated images with all details; single parts; and finally, outlines, patches of color, or an isolated, interesting detail. With declining eidetic power, the ability to recall color decreased, while the proportion of gray increased. Kratina concludes that gray coloration is a sign of a low degree of eidetic ability. In contradistinction to P. Busse's formulation Kratina succeeded in two cases in transforming the original coloration into gray. In the content of the image also, he observed interesting deviations from the original, as well as spontaneous displacements and transformations. In some subjects, the image with all its details appeared immediately; in others it developed gradually. In connection with his own researches, Kratina gives a critical discussion of the Jaensch theory. He considers that there is no reason to assume a continuous series of memory images, since after-images are not memory phenomena, but originate in a continuation of retinal stimulation. Similarly, he disagrees with the theory of the unity phase, because the general expansion of the eidetic Anlage in childhood is insufficiently supported by the exceptions to Emmert's law. Furthermore, reports in the literature concerning optimal conditions for the appearance of the Anschauungsbilder (length of exposure, fixation or intermittent views) are contradictory. The existence of two different kinds of Anschauungsbilder (representative and after-images) as well as their relationship to certain somatic types is also still questioned. Eidetic imagery is of great importance for poetic and artistic creation, but it is widely separated from the sphere of abstract ideas which dominates the mental life after puberty. Hence no radical change in pedagogy is to be expected from these researches. Nevertheless, studies in eidetic imagery are of the greatest value for teachers because they show that the mind of the child



differs from that of the adult not only quantitatively, but also qualitatively.—*M. E. Morse* (Catonsville, Md.).

4705. **Marzi, A.** *Contributo allo studio dell'attenzione in rapporto con l'età.* (Contribution to the study of attention in relation to age.) *Atti Soc. ital. prog. sci.*, XX riunione, 1932, 2, 388-391.—The author gave the attention test of Toulouse and Piéron to 600 students in the industrial school of Florence, divided about equally among the ages from 11 to 20 inclusive. He found that the error curve was practically constant for these ages, although the speed curve (using the time of finishing the test, rather than the work done in a given time) showed a constant and very remarkable increase from 11 to 18 years (the time being reduced by half); after 18 years the values were constant. It is concluded that the progression with age so demonstrated, in so far as it concerns attention, is due to an increase in reactive capacity.—*R. Calabresi* (Rome).

4706. **McGeoch, G. O.** *A revaluation of the whole-part problem in learning.* *J. Educ. Res.*, 1932, 26, 1-5.—Analyses of a number of experimental studies with the relative efficiency of the whole and part methods of learning give divergent results, all of which are statistically reliable. The author believes that these variable results are due to a number of factors in the experimental situations, such as the forms of the part method used; the methods of measuring learning efficiency; the age, ability, intelligence, and practice of the subjects used; the nature, length and difficulty of the learning material; and the like.—*S. W. Fernberger* (Pennsylvania).

4707. **Pauli, R.** *Zur Methodik der Gedächtnispsychologie.* (A contribution to the methodology of memory psychology.) *Arch. f. d. ges. Psychol.*, 1932, 85, 41-94.—The different techniques applied to the study of memory are closely related and form a unity, a system. This system requires further development, particularly in the field of recognition and of retention. A new method for investigating the latter is presented. It is called the "trace" method, because it attempts to analyze the memory traces in the subject's mind. The writer finds that the prerequisite for all memory methods, a uniform, standardized material for learning, is only partly fulfilled by nonsense syllables, and considers two-place numbers chosen according to definite rules and arranged in series better adapted to memory investigation. Consonant pairs may also be used effectively. Nonsense material is supplemented by monosyllabic nouns. An apparatus for universal use in memory experiments is described.—*J. L. Jervis* (Yale).

4708. **Stern, W.** *Personalistik der Erinnerung.* (The personalistic aspect of memory.) *Zsch. f. Psychol.*, 1930, 118, 350-381.—Stern has completely revised the fourth edition of his book on the development of memory in early infancy. This article serves as the new introduction. The term *Personalistik* signifies the scientific study of all the physical, psychological, and cultural facts which, in the individual, are connected with his personal life considered as a

whole. The study of memory from this point of view raises such questions as the following: What tendencies inherent in a person are memory factors? What personal ends does memory serve? What does it do in the realization of these ends? How is this personal function of memory reflected in the conscious life of the individual? What part does this personal function play in the progressive development of personality? What is its relation to the other spheres of personality? In what way does it participate in the construction of his personal world, that is, in the construction of that reality of which the individual considers himself the center? The author discusses these problems and treats old ones in a new manner. He shows us how, without abandoning any of the exact methods of scientific psychology, we can give correct emphasis to the reasonable demands of "verstehende Psychologie."—*A. B. Hunter* (Clark).

4709. **Vertes, J. O.** *Assoziation und Intelligenz.* (Association and intelligence.) *Arch. f. d. ges. Psychol.*, 1932, 85, 219-228.—The investigator used the Ranschburg paired-word method to determine the laws of word-memory. Intelligent children were compared with those of less intelligence. 100 school children ranging in age from 6 to 18 years were subjects. The writer was particularly interested in the false reproductions, which the following results concern. Pupils of the *Realschule* had on the first day of testing more preferred, i.e., identical reactions than the pupils of the *Volksschule*. The associations of the *Volksschüler* differ somewhat from those of the *Mittelschüler*. Older, more intelligent pupils show always (on the first, second and eighth days of the experiment) more preferred associations than less intelligent younger children. Younger children require longer preferred association times than the older children. The preferred associations of the more intelligent older children show much greater constancy than those of the less intelligent younger pupils. The younger the pupil, the smaller the number of false associations. Those of poorest mental ability show the least number of false reproductions.—*J. L. Jervis* (Yale).

4710. **Wenzl, A.** *Empirische und theoretische Beiträge zur Erinnerungsarbeit bei erschwerter Wortfindung.* (Empirical and theoretical contributions to the process involved in the difficult recall of words.) *Arch. f. d. ges. Psychol.*, 1932, 85, 181-218.—The general conception that the conscious effort to recall a word actually hinders the process is in the main false, though pursuing a path which is wrong from the beginning naturally leads farther astray. The best method is to proceed slowly and return to the point of departure frequently. In the majority of cases the recall of the word has its point of departure in auditory imagery. An awareness of the form, number of syllables and word rhythm enters into the process; one is conscious of parts of the word, usually of the beginning, or of the chief vowel or consonant combinations; or if the sound-picture is vague and exceedingly general, one may recognize what the writer calls its general "physiognomy." The recall of the word results often from the significance and

meaning of its content and its relationship to other word contents. Protocols are appended, giving point of departure for the word sought, path followed in the recall process, and an explanation of the association involved.—*J. L. Jervis* (Yale).

4711. Wintch, J. *Esquisse physiologique de l'attention*. (A physiological outline of attention.) *Arch. suisses de neur. et de psychiat.*, 1930, 26, 209-226.—The author discusses the results of a group of experiments with attention tests, special emphasis being given to the reaction time method. Lausanne school children were used as subjects. He compares the attention found in good and poor students, discussing the degree and stability. Referring to Pavlov, he relates attention to a conditioned reflex condition and finds that his pedagogical observations are in accord with the laws established by the work of the Russian school.—*A. B. Hunter* (Clark).

[See also abstracts 4757, 4761, 4955.]

#### NERVOUS SYSTEM

4712. Adrian, E. D. *Potential changes in the isolated nervous system of *Dytiscus marginalis**. *J. Physiol.*, 1931, 72, 132-151.—The nerve ganglia of insects shows considerable spontaneous activity when isolated from the body. Discharges in individual nerve fibers were detected by amplifying the potential changes. In the thoracic and abdominal ganglion chain of the beetle *Dytiscus* periodic outbursts occur with a frequency characteristic of respiratory movements. At the time of these outbursts the ganglia slowly develop negative potentials, with respect to the nerve, which last throughout the period of discharge. They are absent in records made with both electrodes on the nerve. The slow potential changes begin before the corresponding nerve discharge, but the frequency is usually at its maximum when the potential change is greatest. The waves are believed to be due to a progressive depolarization and recovery in the dendritic region of the ganglia, the nerve discharge varying with the depolarization. This is the same explanation as suggested by Adrian and Buytendijk to account for the slow potential changes in the brain stem of the gold fish. A battery-coupled amplifier for use with the oscillograph is described; this enables slow as well as rapid potential changes to be recorded without distortion.—*H. Hoagland* (Clark).

4713. Adrian, E. D., & Buytendijk, F. J. J. *Potential changes in the isolated brain stem of the goldfish*. *J. Physiol.*, 1931, 71, 121-135.—Rhythmic potential waves (up to  $\frac{1}{4}$  sec. duration) recurring at intervals of from 1 to 3 seconds were recorded from the brain stem of the goldfish. These waves were found to correspond in frequency to normal opercular breathing rhythms. The waves are caused by negative variations occurring in the vagal lobes with respect to other parts of the brain stem. A variety of complex potential waves were also recorded from the midbrain. It is suggested that the slow waves are produced by slow potential changes in the nerve cells or dendrites rather than by the summation of nerve

fiber discharges. It is noteworthy that rhythmic activity of the respiratory center in the goldfish can occur in the absence of sensory impulses.—*H. Hoagland* (Clark).

4714. Adrian, E. D., Cattell, McK., & Hoagland, H. *Sensory discharges in single cutaneous nerve fibers*. *J. Physiol.*, 1931, 72, 377-391.—The impulse discharges in single nerve fibers connected with tactile endings in the skin of the frog were recorded from dorsal cutaneous nerves. Many of the nerves contain a single fiber which has divided near the cord and sent branches into two nerve trunks. On stimulation of the receptive area of one branch, antidromic impulses pass down the other branch and can be recorded. The skin area supplied by a single fiber varies from 4 to 100 sq. mm., and this area remains constant in a given preparation despite various physiological changes induced in the frog. There is considerable overlapping of areas supplied by different fibers, but no evidence of a peripheral network common to several fibers. Adaptation of the tactile endings is very rapid; impulses are set up only in response to movement of the skin, and very slow movement may fail to excite. The endings when stimulated by an intermittent air blast give discharges of long duration at high frequencies. The maximum frequency may be as high as 200-300 per second. This approaches the maximum frequency which the fiber can carry. The view previously advanced that the sensory endings have a longer refractory period than the nerve fibers is incorrect. High frequency air jet stimulation does not give rise to pain reactions in an intact frog in spite of the maximal discharge set up in the sensory fibers. Thus the endings responding to this form of stimulation do not produce pain when the discharge frequency is very high. The endings in question are situated in the epidermis, for the discharge can no longer be obtained after this is scraped away. This treatment sets up a continued discharge of slow impulses indistinguishable from those produced by acid on the skin.—*H. Hoagland* (Clark).

4715. Arslan, K. *Sugli effetti della labirintectomia bilaterale nell'animale senza cervelletto*. (The effects of labyrinthectomy in animals lacking a cerebellum.) *Minerva med., atti della Soc. med.-chir. di Padova*, 1931, 42, 6.—The author reports on the phenomena which appear when the cerebellum is lacking; and on the changes which this condition produces in the syndrome of right and left labyrinthectomy.—*R. Calabresi* (Rome).

4716. Arslan, K. *Sugli effetti delle lesioni unilaterali del cervelletto in animali precedentemente slabirintati dal lato opposto*. (The effects of unilateral cerebellar lesions in animals previously deprived of the contralateral labyrinth.) *Minerva med., atti della Soc. med.-chir. di Padova*, 1931, 42, 6.—The author reports on the changes in the syndrome of hemocerebellar lesion that these animals present in comparison with intact animals, both having had the same surgical operations on the cerebellum.—*R. Calabresi* (Rome).

4717. Bellavitis, C. Alterazioni della microglia e del tessuto nervoso in generale nell'avvelenamento sperimentale con vapori di carbone ( $\text{CO}_2$ ). Changes of the microglia and the nervous tissue in general by the experimental action of  $\text{CO}_2$ . *Rass. stud. psichiat.*, 1932, 21, No. 2.—After the intoxication of rabbits by  $\text{CO}_2$ , the author noted lesions scattered in the part of the nervous system which is concerned with the vascular system (hemorrhages and capillary disturbances), and microglia of the degenerative and progressive type. The oligodendroglia appeared least injured. The author thinks there was a direct action of the  $\text{CO}_2$  on the microglia; but he admits also that the lesions which were apparent might be phenomena of reaction to vascular and necrotic alterations.—G. C. Ferrari (Bologna).

4718. Bellucci, L. Sull'ontogenesi del centro corticale-laringeo nel cane e suoi rapporti con altri centri motori. (On the ontogenesis of the cortico-laryngeal center in the dog and its relations to other motor centers.) *Biol. Soc. ital. biol. sper.*, 1931, 7, 656-659.—The cortico-laryngeal center, which is located in the dog in the second circumvolution, develops slowly, after the other motor centers are already relatively active. The two motor reactions of the larynx, adduction and abduction, are developed at different times: first is the reaction of abduction, which appears on the 30th day, in dependence on the laryngeal activity; the reaction of adduction of the vocal cords is manifested at about the 40th day, in association with the activity of phonation.—R. Calabresi (Rome).

4719. Benciolini, F. Ricerche sperimentali sulla fisiologia del simpatico laringeo. (Experimental studies on the physiology of the laryngeal part of the sympathetic system.) *Valsalva*, 1931, 10, 746-764.—R. Calabresi (Rome).

4720. Bishop, G. H. Action of nerve depressants on potential. *J. Cell. & Comp. Physiol.*, 1932, 1, 177-193.—The depressants of the action and demarcation potential of nerves (green frog) fall into two classes: (1) those which decrease the amplitude of the action current before block and give a negative potential of rest, such as KCl and poisons like aconitine; and (2) those which block the impulse with no significant previous decreases in amplitude and with an increase of the rest potential at the affected point, as cocaine and the aliphatic narcotics. The depression of the action potential is not proportional to the change of the potential of rest; and the rise of threshold and increase of refractory period suggests that these are the factors which cause block. Block by depressants cannot be assigned to the depolarization of the nerve. The results of depression by chemicals are compared to the effects of electrical currents.—O. W. Richards (Yale).

4721. Bratianu, S., & Guerriero, C. Nouvelles recherches expérimentales sur les cellules à fonction colloïdopexique de l'encéphale et sur la microglie de Del Río Hortega. (New experimental researches on the colloïdopexic brain cells and on the microglia of Del Río Hortega.) *Arch. anat. microscop.*, 1930, 26, 335-372.—(*Biol. Abst.* VI: 13143).

4722. Bruno, G. Sulla struttura e su alcune proprietà fisiche della fibra nervosa midollata. (Concerning the structure and some physical properties of the nervous medullary fibers.) *Arch. ital. di anat. e embriol. fasc.*, 1931, 1, 1-15.—The author's findings follow: (1) The neurilemma is a continuous sheath which adheres to the myelin throughout its entire length, and to the axis cylinder at the level of the node of Ranvier; it possesses the property of contracting under the action of hyper- or hypotonic solutions and coloring substances. (2) The myelin sheath is bi-refrangible, anisotropic, subject to change. (3) The sections of Schmidt-Lantermann are made up of the same substance as the neurilemma. (4) The axis cylinder takes up a third of the volume of the fiber, and shrinks to a third at the level of the node of Ranvier; its alteration induces the formation of a coagulum in the form of a filament, the diameter of which is equal to  $1\frac{1}{2}$  times that of the normal axis cylinder. (5) In the fibers which do not show change there is no protoplasmic sheath between the axis cylinder and the myelin. (6) The axis cylinder or its coagulum adheres to the neurilemma at the level of the node of Ranvier. (7) The normal axis cylinder is made up of a homogeneous colloid; the change consists in the coagulation. (8) The axillary filament of the fiber of fixed and colored preparations corresponds to the coagulum of the axis cylinder.—R. Calabresi (Rome).

4723. Campion, G. G. The thalamo-cortical circulation of neural impulse and the psycho-neuroses. *Brit. J. Med. Psychol.*, 1932, 12, 59-64.—The author speculates on the central place of the thalamus in coordinating the neural processes conditioning mental states.—E. R. Hilgard (Yale).

4724. Cattell, McK., & Hoagland, H. Response of tactile receptors to intermittent stimulation. *J. Physiol.*, 1931, 72, 292-404.—Observations were made of the action potentials in single sensory nerve fibers resulting from intermittent stimulation of the receptors in the skin of the frog by means of an interrupted air jet. The rate of adaptation (failure of response) was found to depend upon the relative durations of the stimulus (puff of air) and the intervening rest period. The greater the proportion of duration of stimulus to rest the more rapid the adaptation. When this ratio is small, responses may continue to follow a high stimulation rate for an hour or more. A continuous air blast applied to the receptors even when no response is elicited results in complete adaptation to an immediately following intermittent stimulus, i.e., adaptation may occur as the result of the stimulus without producing a single impulse. Impulses reaching the end-organ antidromically cause a decrease in its excitability to subsequent stimulation resembling that occurring when the stimulus is applied directly. The receptors may respond to closely spaced stimuli at a rate bringing successive impulses in the nerve fiber well within the relative refractory period. The action potential of the second impulse recorded from the single nerve fiber is then reduced in magnitude.—H. Hoagland (Clark).



4725. Coates, A. E., & Tiegs, O. W. Further observations on certain alleged effects of sympathetic nerves on skeletal muscle. *Australian J. Exper. Biol. & Med. Sci.*, 1930, 71, 37-40.—(Biol. Abst. VI: 10042).

4726. Learmouth, J. R., Lillie, W. J., & Kernohan, J. W. Unusual surgical lesions affecting the optic nerves and chiasm. *Amer. J. Ophth.*, 1931, 14, 738-749.—Reports of six cases.—C. W. Darrow (Behavior Research Fund, Chicago).

4727. Manson, J. S., & Ferguson, F. R. "Decerebrate rigidity" in man. *Brit. Med. J.*, 1930, 2, 769-771.—(Biol. Abst. VI: 10084).

4728. Müller, L. R. Über die Gegensätzlichkeit in der Lebensinnervation. (Antagonism in innervation.) *Dtsch. Zsch. f. Nervenhe.*, 1929, 111, 102-110.—(Biol. Abst. VI: 13161).

4729. Sheehan, D. Nerve endings in Pacinian bodies. *J. Physiol.*, 1931, 73, 1 P.—H. Hoagland (Clark).

4730. Stavrakys, G. The action of partly degenerated sympathetic nerve on the submaxillary gland in the dog. *Trans. Roy. Soc. Canada, Section 5, Biol. Sci.*, 1930, 24, 193-195.—(Biol. Abst. VI: 10106).

4731. Tsai, C. Action of narcotics on the conduction of nerve impulses from a single end-organ. *J. Physiol.*, 1931, 73, 382-404.—With cocaineized nerve, impulses produced by a single end-organ preparation are conducted normally when the frequency is low. At higher frequencies the functions of the nerve are progressively impaired; the action potentials show a graded reduction followed by irregularities of frequency, and some fail to traverse the narcotized area. This phenomena may be due to the conduction of impulses in an incompletely recovered fiber as a consequence of prolongation of the refractory period caused by narcosis. When the frequency of discharge is sufficiently low the narcotized nerve recovers sufficiently to conduct impulses normally again. With ether and alcohol it was found that the size of the impulses in the narcotized region was reduced progressively during narcosis, but as a rule the frequency does not decline. On emergence from the affected area the potential recovers to its normal full magnitude.—H. Hoagland (Clark).

4732. Walker, C. B. Lesions of the chiasmal region. *Amer. J. Ophth.*, 1930, 13, 198-208.—A discussion of pathological conditions including effects on the pituitary.—C. W. Darrow (Behavior Research Fund, Chicago).

4733. Walker, C. B. Analogies and differences of the second and eighth nerves and end-organs. Generalizing preliminary consideration. II. Anatomical. *Amer. J. Ophth.*, 1932, 15, 329-345.—A comparative study of the eye and ear is made in regard to blood supply, bony canals, nerves, and drainage systems.—C. W. Darrow (Behavior Research Fund, Chicago).

4734. Wolf, H. J. Ein Fall von isolierter Glossopharyngeuslähmung durch Blutung in der Medulla oblongata. (A case of isolated glossopharyngeal

paralysis due to hemorrhage in the medulla oblongata). *Dtsch. Zsch. f. Nervenhe.*, 1931, 120, 80-86.—(Biol. Abst. VI: 10111).

[See also abstracts 4673, 4693, 4696, 4759, 4792, 4835, 4905.]

#### MOTOR PHENOMENA AND ACTION

4735. Aducco, V. Le caractère individuel de la courbe ergographique par rapport à l'âge. (The individual character of the ergographic curve in relation to age.) *Arch. ital. de biol.*, 1930, 82, 134-141.—An ergogram of the author was published in 1884 in a book on fatigue by Mosso, and since that time he had had a number of ergograms taken. In all of them the author noticed a similarity in form which has led him to believe that there may be an ergographic profile characteristic of each individual. He gives six ergograms, taken at the ages of 24, 28, 43, 55, and 69, one of which was recorded after a period of illness. The parabolic appearance of the general profile gives satisfactory calculations with the following constant values:  $43.5-0.025x^2$ ;  $38.0-0.015x^2$ ;  $54.5-0.020x^2$ ;  $60.0-0.030x^2$ ;  $60.0-0.030x^2$ . The data, of course, represent conditions for only one individual.—A. B. Hunter (Clark).

4736. Benedict, F. G., & Benedict, C. G. The energy requirements of intense mental effort. *Proc. Nat. Acad. Sci.*, 1930, 16, 438-443.—The authors compared periods of complete repose and periods of intense mental work (multiplication) and studied the different phases of simple effort in attention; the final calculations are not yet complete. Five men and one woman were used as subjects. Due to the work performed, the cardiac frequency increased on an average from 60 to 65, respiration from 14 to 15, total air consumption from 5.4 to 6.2 liters per minute, emission of carbon dioxide from 169 to 183 c.c. per minute, and the absorption of oxygen from 208 to 216. The comparatively smaller increase in the last may be explained by a slight elevation in the respiratory quotient. The effect on general metabolism was minimal, not surpassing a 3 to 4% increase in heat production as a result of the increased consumption of oxygen.—A. B. Hunter (Clark).

4737. Bier, W. Beitrag zur Beeinflussung des Kreislaufes durch psychische Vorgänge. (Contribution to the influence of psychic processes on the circulation.) *Zsch. f. klin. Med.*, 1930, 113, 762.—In 14 subjects at rest the blood pressure, pulse, electrocardiogram, and respiration were recorded. The persons were then put into deep hypnosis, and the suggestions of rest, happiness, and excitement were given them. The pulse showed with "rest" a definite decrease in frequency, with "happiness" and "excitement" an increase. Hypnosis as such had very variable effects, especially on the blood pressure, which throughout the experiments showed no consistent behavior. Awakening usually caused a decrease in the pulse rate. Respiration either decreased at the beginning of hypnosis or remained unchanged. When the suggestions were given, it varied with the pulse rate. The suggestions caused throughout a rise in the

peaks of P and R, especially "happy excitement." By repetition or increase of this suggestion, the peaks became lower. The hypnotic state alone has no influence on the electrocardiogram. In several subjects, it showed no noteworthy change during the experiments. The findings lead to the conclusion that the changes in the electrocardiogram cannot be ascribed solely to variations of resistance in the body. It must be assumed that the psychic processes can cause transient functional changes in heart action, which may continue longer than the affect. The author suggests the possibility of research into affective types, as shown by differences in the behavior of the electrocardiogram. He also wishes that we might do away with the practice of speaking of a "contribution to the influence, etc.," because in reality our research is concerned not with "influence," but with our knowledge of it.—*M. E. Morse* (Catonsville, Md.).

4738. Blair, H. A. On the intensity-time relations for stimulation by electric currents. I and II. *J. Gen. Physiol.*, 1932, 15, 709-754.—Various solutions of the differential equation

$$\frac{dp}{dt} = KV - kp$$

are shown to be adequately in agreement with the facts of intensity-time relations for stimulation by electric currents. New experimental work is in accord with the formulation. (In the equation  $p$  is assumed to represent the local excitatory process,  $V$  is the voltage of the stimulus and  $K$  and  $k$  are constants.)—*C. H. Graham* (Clark).

4739. Borghesan, E. Apparecchio per l'esame dei movimenti respiratori di diversi punti del torace—toracografo. (An apparatus for studying respiratory movements of different points of the thorax—the thoracograph.) *Valsalva*, 1932, 7, 544-569.—Description of a new type of apparatus, for registering separately the respiratory movements of different points of the thorax. With this apparatus it becomes possible to take observations of the patient while lying down. Complete immobility is not necessary, because the thoracograph, unlike apparatus used before, is completely attached to the body of the patient.—*R. Calabresi* (Rome).

4740. Colombi, C., & Sacchi, U. La secrezione psichica dello stomaco studiata in un uomo portatore di fistola gastrica. (Psychic secretion of the stomach studied in a man with a gastric fistula.) *Arch. dell'Ist. biochem. ital.*, 1931, 3, 263-282.—The authors made several studies of the psychic secretion in an individual with gastric fistula. They confirm the existence of a psychic secretion at the prospect of foods and mastication (without the introduction of food into the stomach). They comment on the importance of inhibitory psychic influences on the quantity of this secretion.—*R. Calabresi* (Rome).

4741. Fetter, D., & Carlson, A. J. I. The effects of experimental hyperthyroidism on gastro-intestinal motility. *Amer. J. Physiol.*, 1932, 101, 598-604.—Hyperthyroidism is clinically known to be frequently accompanied by gastro-intestinal symptoms, the most common of which are increased desire for

food and diarrhea. A hyperthyroidized patient may require a body diet containing as many as 5,000 calories, in order to maintain his body weight. Experimenting upon dogs, it has been shown that the daily feeding of 0.4 gram per kilo body weight of thyroid increases the activity of the empty stomach of dogs as shown by the type and height of the contractions of the empty stomach. After the thyroid feeding is discontinued there is a lowering of gastric activity, although in two months a return to the normal level was not observed in two of the six dogs. Explanation of the increased intestinal activity may lie in the change in gastric secretion. Since gastric acidity is lessened in hyperthyroidism protein food is probably not as well digested and may act as a stimulus to peristaltic activity in the smaller intestine.—*C. Landis* (New York Psychiatric Institute).

4742. Fetter, D., Barron, L., & Carlson, A. J. II. The effect of induced hyperthyroidism on the gastro-intestinal motility of vagotomized dogs. *Amer. J. Physiol.*, 1932, 101, 605-611.—"Upon the administration of thyroid substance, vagotomized dogs show: (1) an increase in hunger contractions; (2) an increase in the speed with which a barium meal passes through the digestive tract, particularly the stomach and the small intestines."—*C. Landis* (New York Psychiatric Institute).

4743. Flaschbart-Kraft, F. Messung von Hemmungszeiten. (Measurement of inhibition time.) *Zsch. f. Psychol.*, 1930, 117, 73-145.—If the signal for stopping a prepared action is perceived very late, the action cannot be inhibited. For measuring the time necessary for inhibiting an imminent movement, the following device was used. The subject looked through a telescope, the field of which was divided by two threads, one stretched behind the other. He was to react so that his movement coincided with the appearance of a cross on a tambour, seen objectively in the prolongation path of the two threads. His reaction would take place, therefore, a little in advance of the coincidence point, according to his personal equation. He determined this point by trial during the preliminary tests, discovering the division point on a graduated scale shown on the tambour, which was to be his individual signal for reaction. In the main tests, however, certain trials were injected into the series in which the movement of the tambour was stopped before the point of objective coincidence was reached. It was found that, in order to give the subject the time necessary for inhibiting the prepared reaction, the stopping point of the tambour must precede the objective coincidence point by 120 to 184  $\sigma$ .—*A. B. Hunter* (Clark).

4744. Fletcher, J. M. Dunlap's theory of habit control. *J. Abn. & Soc. Psychol.*, 1932, 26, 395-401.—The usually accepted theory of habit formation is repetition, whereas Dunlap holds that the way to get rid of an objectionable habit is to repeat it. He believes that the knowledge of the wrong or error of any action is often the force which impels its fulfillment. When the clinician requests his subject to give expression to a habit ordinarily regarded as objectionable, the social disapproval gives way to social

assent. The subject is now requested to do the very thing which he has been trying to keep from doing. If he is successful in the performance of the requested reactions, obsessional helplessness disappears and volitional control takes its place.—*C. H. Johnson* (Boston Psychopathic Hospital).

4745. *Fletcher, J. M.* The verdict of psychologists on war instincts. *Scient. Mo.*, 1932, 35, 142-145.—Members of the American Psychological Association were asked: Do you hold that there are ineradicable, instinctive factors that make war between nations inevitable? 70% responded as follows: no, 346; yes, 10; unclassified, 22.—*J. F. Dashiell* (North Carolina).

4746. *Foà, C.* La regolazione neuro-umorale della circolazione del sangue. (The neuro-humoral regulation of the circulation of the blood.) *Scientia*, 1932, 52, 17-38.—Circulatory phenomena are not simple reflexes, but reflexes which are only accomplished by humoral mechanisms. There is described experimental evidence, of numerous workers, of a secretion of the node of Keith and Hack, which affects the vagus, of adrenalin, which affects the sympathetics, and of pressure variations, which affect the carotid sinus. Six diagrams of experimental procedure for the carotid pressure work.—*R. G. Sherwood* (Redmond, Washington).

4747. *Garretti, S.* L'influenza della flessione ed estensione del capo sui riflessi di posizione degli arti inferiori. (Influence of the flexion and extension of the head on the reflexes of position of the lower limbs.) *Riv. pat. nerv. e ment.*, 1932, 39, No. 1.—From a study of 12 cases comes the conclusion that the extension or flexion of the head reinforces the reflexes of position of the lower limbs if the reflexes exist, but cannot produce the tonus of position when it is not present.—*G. C. Ferrari* (Bologna).

4748. *Gelfan, S., & Bishop, G. H.* Action potentials from single muscle fibers. *Amer. J. Physiol.*, 1932, 101, 678-685.—"A method is described that permits cathode ray oscillograph measurements of action potentials from single muscle fibers, when the latter are activated by microelectrodes, to give conducted responses. In a single muscle fiber of the retrolingual membrane, no action potential could be detected during submaximal contraction."—*C. Landis* (New York Psychiatric Institute).

4749. *Goldschmidt, R.* Intersexualität und menschliches Zwittertum. (Intersexuality and human hermaphroditism.) *Dtsch. med. Woch.*, 1931, No. 30, 1288-1292.—*Goldschmidt* demonstrates that human hermaphroditism is entirely comparable to that in other mammals, not at all of unregulated occurrence but "related to a simple phenomenon of which we have exact knowledge." He emphasizes, however, the necessity of distinguishing from it a series of different phenomena which, with the exception of true intersexuality, have been included with it. Formerly *Goldschmidt* himself believed that homosexuality might be regarded as a stage in intersexuality. "This view, however, cannot be maintained, since nowhere in the series of intersexuality is there a

place for homosexuality." He cannot decide whether it is a purely hormonal phenomenon or something quite different. Furthermore, according to his opinion, gynecomastia, hypospadias, and suprarenal or tumoral virilism do not belong in the field of intersexuality.—*M. E. Morse* (Catonsville, Md.).

4750. *Gozzano, M.* Osservazioni sul tono d'appoggio, sulle reazioni di appoggio negli animali e sulle loro modificazioni sotto l'azione della bulbocapnina. (Observations on the tonus of support, on the reactions of support in animals and their modifications under bulbocapnine action.) *Boll. Soc. ital. biol. sper.*, 1931, 7, 705-708.—The author repeated the experiments of *Rademaker* relative to the conditions which permit the establishment and maintenance of body equilibrium, particularly in reference to the tonus of support; and studied the modifications which occur under bulbocapnine action, which provokes states of catalepsy. In these experiments the author noted a phenomenon which he placed in relation with the reactions of position, and which consists in movements of flexion and extension of the legs, movements provoked by the raising and lowering of the posterior part of the body.—*R. Calabresi* (Rome).

4751. *Henderson, Y., & Radloff, E. M.* The chemical control of breathing as shown in the acid-base balance of the blood, under progressive decrease of oxygen. *Amer. J. Physiol.*, 1932, 101, 647-661.—When the oxygen content of inspired air is gradually reduced without accumulation of carbon dioxide, the effects develop in two distinct periods. One of these periods is that while the percentage of oxygen in the inspired air is above 8%, the other occurs after the oxygen has fallen below 8%. The first period involves merely a tolerable degree of anoxemia. The second period is that of asphyxia and ends in death. The increase of breathing during the first period is clearly not due to formation of lactic acid and increase in the hydrogen ion concentration of the blood, nor is there any valid evidence for an acidosis localized in the respiratory center. A conception of the chemical control of breathing is presented as follows: The specific stimulus to the respiratory center is not carbon dioxide but the hydrogen ion concentration of the blood plasma. The concentration of the hydrogen ions is not an independent factor, but is the resultant of two factors, each of which controls a particular feature of respiration. The blood alkali determines the dilution ratio of breathing: that is, the volume of air breathed per unit mass of carbon dioxide exhaled. The carbon dioxide production of the body determines the volume of air breathed at the dilution ratio set by the alkali in use. But these controls operate to afford a basal pH only so long as the oxygen supply is ample and no other absorbing influences occur to alter the sensitivity of the respiratory center from the value that it has under basal conditions. The sensitivity sets the pH to which the respiratory center will respond and which it will therefore maintain.—*C. Landis* (New York Psychiatric Institute).

4752. *Koch, E.* Elektrophysiologische Untersuchungen über das Verhalten des Patellar-reflexes bei



**Langstreckenläufern.** (Electrographic investigations on the behavior of the patellar reflex in distance runners.) *Arbeitsphysiol.*, 1930, 2, 409-416.—(*Biol. Abst.* VI: 15974).

4753. Kosnick, H. **Muskel und Geist. Lehrbuch für Künstler und Jedermann.** (Muscle and mind. Textbook for artists and laymen.) Munich: Gmelin, 1931. Pp. 81. M. 2.80.—The intimate connection between mind and body is emphasized and a series of practical exercises is suggested to develop a better coordination between the two. These are purely exercises of the imagination, such as thinking of parts of the body in their relation to one another and imagining movements of the body and pressures in the body. The book is entirely psychological, not physiological. For example, the underlying thought is that the function of muscle is either to produce movement or to work against resistance. The aims of the exercises are to minimize the laboriousness of the latter and make it a joy like the former.—W. O. Fenn.

4754. Kreipe, K. **Ueber die Mehrfachhandlung und über das Gesetz der speziellen Determination.** (On multiple action and on the law of special determination.) *Zsch. f. Psychol.*, 1930, 117, 146-229.—The reaction to multiple forms can be defined only by a complex formula and depends on several possibilities. According to the position occupied by a black quadrant in a circle, the subject had to react by pressing on a key with his hand or on a pedal with his foot, either on the right or the left side of his body. Several black quadrants could be shown simultaneously, and thus several combinations of reactions could be called for. They might be symmetrical, that is, reactions of both hands, both feet, or a hand and a foot on the same side of the body, or they might be crossed, that is, reactions of the right hand and the left foot, for example. The motor determination in the symmetrical responses was always the same mental act, even when the simultaneity of execution was not perfect, while in the crossed responses there were always two successive motor determinations, even when the two movements were nearly simultaneous. Symbolic representations could be interposed between the perception of the signals and the motor determination. In a second series the apparatus was arranged so as to present groups of letters, either black or red. In one test the subject had to name the second of these letters, while in a second test he had, in addition, to raise his right hand which was resting on a key (two reactions). In the second case it was found impossible, in spite of acceleration produced by repeated training, to make the mental command of these two heterogeneous acts simultaneous. Simultaneous movements of the four limbs corresponding to four-letter combinations were as simple, from the psychological point of view, as the movements of two symmetrical limbs, while the movement of three limbs always demanded a double psychological command. Their latency time was 438  $\sigma$ , while for two symmetrical movements it was only 278  $\sigma$ . The action can be prescribed in two separate periods, the second instruction

worded so as to limit the indefiniteness of the first instruction. For example, the experimenter announces a movement for one pair of limbs, and then later announces whether this movement is to be up or down. The reaction times obtained for this kind of command are shorter than when the instructions are given all at once. There is, therefore, a general latent determination which prepares the motor determination from the psychological point of view. Abbreviations in reaction time depend, not on the perception of the signal itself, but on the constitution of this general latent determination.—A. B. Hunter (Clark).

4755. Levine, M. **Psychogalvanic reaction in painful stimuli in hypnotic and hysterical anesthesia.** *Bull. Johns Hopkins Hosp.*, 1930, 46, 331-339.—(*Biol. Abst.* VI: 15975).

4756. MacDonald, J. S., & MacDonald, M. S. **"Habit" in walking and its cost.** *J. Physiol.*, 1931, 72, 18P-20P.—The walking of seven subjects of diverse physique was tested on numerous occasions and empirical formulae were derived relating energy utilization (determined by gas analysis), length of step and speed. It was found in the case of the principal subject tested that with wide variations of speed the energy per step remains constant. The "cost" is evidently the "habit" and might be claimed a place in "memory."—H. Hoagland (Clark).

4757. Maiti, H. P., & Jalota, S. S. **The suitability of the six-point star figure mirror drawing as a test of motor learning.** *Indian J. Psychol.*, 1932, 7, 87-93.—The six-point star figure mirror tracing is unsuitable as a test of motor learning, for the difficulties of tracing the different sides are practically unknown, and their combination is haphazard. Its validity as a test of learning ranges between .084 and .22.—E. H. Kemp (Clark).

4758. Matthes, K., & Ruch, T. C. **Reflex and motor contraction in chronic spinal animals.** *J. Physiol.*, 1931, 72, 29P-31P.—H. Hoagland (Clark).

4759. Matthews, B. H. C. **The response of a single end-organ.** *J. Physiol.*, 1931, 71, 64-110.—Electrical responses to stretch of a single muscle spindle located in a small toe muscle of the frog were extensively studied under a variety of conditions. The frequency of impulse discharge was found to be roughly proportional to the logarithm of the stimulus. With rapid loading, impulses are set up initially at a frequency so great as to force the nerve to its utmost carrying capacity—impulses being forced to travel in the relative refractory period produced by the preceding impulse. The intervals between the impulses at these high frequencies vary with temperature in much the same way as the absolute refractory period of a nerve trunk. The effects on the activity of the end-organ of ionic concentrations of the bathing Ringer solution, the effects of HCN, and of galvanic currents passed through the preparation were examined, and are discussed in connection with a theoretical consideration of the nature of the excitatory state of the end-organ. Adaptation, the dropping out of impulses in response to a constant

stretch on the muscle, was investigated in connection with the above variables. A hypothesis is suggested to account for the behavior of the end-organs.—*H. Hoagland* (Clark).

4760. **Matthews, B. H. C.** The response of a muscle spindle during active contraction of a muscle. *J. Physiol.*, 1931, 72, 153-174.—Observations were made of the action currents from single muscle spindles during the contraction of the muscles. With the muscle under slight initial tension both isometric and isotonic twitches are found to produce little response of the spindle during the rising phase of the contraction, but with relaxation there is a considerable discharge of impulses. Control experiments show that the spindle is not stimulated by the action current of the muscles; it seems to be connected only with the mechanical events in the muscle. During tetanization sensory responses are in abeyance, but restart often at an increased frequency when the muscle relaxes. A theoretical discussion of the mechanism of the muscle spindle is presented in the light of the experiment along with suggestions concerning the nature of the "silent period," a characteristic of mammalian reflexes.—*H. Hoagland* (Clark).

4761. **Max, L. W.** Myoesthesia and "imageless thought." *Science*, 1932, 76, 235-236.—Upon minimal electric stimulation of muscles, the subjects reported a sensation of shock but no perception of movement. It is suggested that the imageless thought of the Würzburg school may have appeared in consciousness as such owing simply to this introspective incapacity to perceive small movements. There is as yet no evidence bearing on other modalities than kinesthesia.—*R. R. Willoughby* (Clark).

4762. **Munro, L.** An unusual condition of left-handedness and stammer. *Lancet*, 1932, 222, 84-85.—During the pre-school age a right-handed boy was trained by his left-handed sister to write with his left hand. Subsequent training at school forced the boy to use his right hand for writing. At the end of a year of school he had developed a severe stammer.—*D. J. Ingle* (Minnesota).

4763. **Needham, D. M.** The biochemistry of muscle. New York: Dutton, 1932. Pp. 174. \$1.25.—*R. R. Willoughby* (Clark).

4764. **Nemoto, M.** Sur la relation du temps écoulé entre les premières mises en action des excitants conditionnels et non-conditionnels combinés pour développer le réflexe conditionnel. (The relation of elapsed time between the first applications of the conditioned and the combined unconditioned stimuli to the development of the conditioned reflex.) *Tohoku J. Exper. Med.*, 1930, 14, 466-486.—(*Biol. Abst.* VI: 10093).

4765. **Ottomello, P.** Sulla innervazione motoria delle fibre muscolari striate nell'uomo. Nota I. I vari tipi di terminazioni nervose nei muscoli dell'eminenza tenare e nei muscoli oculo-estrinseci. (On the motor innervation of the striate muscular fibers in man. Note I. The different types of nervous endings in the muscles of the thenar prominence and the oculo-extrinsic muscles.) *Boll. della Soc.*

*med.-chir. di Pavia*, 1931, 5, 475-497.—With Bielschowski's method and the dilaceration process the author has proved the existence of several varieties of motor endings in the thenar and oculo-extrinsic muscles. There is a description of the endings of medulla fibers, the endings which arise from myelin fibers, and, in the oculo muscles, the ball-shaped endings and those which arise from independent non-myelinated fibers. In the thenar are also found naked axis cylinders which end in different forms (for example, a knot).—*R. Calabresi* (Rome).

4766. **Perez-Cirera, R.** Untersuchungen über die Aktionsströme der Augenmuskeln mit Hilfe von Verstärkern. (Studies of the action currents of the eye-muscles with the aid of amplification.) *Arch. f. Augenhk.*, 1932, 105, 453-459.—Advantages of using an electrical amplifier with the string galvanometer, particularly in connection with the study of nystagmus.—*S. M. Newhall* (Yale).

4767. **Pfaender, A.** Phänomenologie des Wollens: eine psychologische Analyse. Motive und Motivation. (The phenomenology of volition: a psychological study. Motives and motivation.) (2nd ed.) Leipzig: Barth, 1930. Pp. 165. 8 RM.—The volume is a reprint of two earlier studies: one which was awarded a prize by the University of Munich in 1899 and one which was written in 1911 for publication in a volume in honor of the 60th anniversary of T. Lipps. In the phenomenological study of volition, the author deals particularly with the feeling of effort. In the second study he is concerned chiefly with the initiation point of the voluntary act, volition being considered as a result of the combined play of motives and character.—*A. B. Hunter* (Clark).

4768. **Pieraccini, G.** Di alcuni atteggiamenti del corpo umano in lavori associati alla locomozione. Posizione di lavoro muscolare con forte flessione del tronco. (Concerning some positions of the human body in the exertion which accompanies locomotion. Position of muscular work with a strong flexion of the trunk.) *Scritti biol.*, 1931, 7, 41.—The position studied by the author is that of the *travail en marche*, such as is found especially in the work of peasants—picking apples, olives, etc. This position of the body, considered statically, involves changes in the direction of the vertebral column and in the position of the pelvis; when accompanied by locomotion it requires the use of several muscles (agonists and antagonists), joints, and ligaments, for the human structure being adapted to locomotion in the vertical position, the equilibrium is very much disturbed. Working in a crouching position or on the knees is still more difficult; locomotion in these positions is almost impossible, and the return from them to the normal position requires a large dispersion of energy. The author examines all the changes in the form and size of the abdominal cavity and in the visceral topography for the position assumed by gleaners, called the Millet position from the famous picture. These changes explain the inconvenience of this position after a meal, and for people with diminished respiratory capacity; in the static position of Millet (without any movement) the respiratory frequency in-

creases, inspiration and expiration decrease, and the vertical movements of the diaphragm diminish. Work in this position is particularly injurious to women, especially to those who have borne many children, since it is obvious what changes pregnancies and confinements bring to the pelvis, and what are the anatomical differences between individuals of the two sexes. As it affects the constitution, work in the position of Millet is more injurious for pyknics than for asthenics. Finally, the author examines the pathological changes (articular, circulatory, etc.) which are common to individuals obliged to work for a long time in this position.—*R. Calabresi* (Rome).

4769. **Ritchie, A. D.** The mechanics of *Pecten* muscle. *J. Physiol.*, 1931, 73, 4P.—Anomalous behavior of the "catch" muscle is accounted for in terms of viscosity alterations of thixotropic gels.—*H. Hoagland* (Clark).

4770. **Rudnik, A.** [A test for examining the capacity to break down an automatism.] *Psikhotekn. i psikhofiziol. truda*, 1930, 3, 9-20.—The majority of tests proposed for the study of mental fatigue are of little value because learning and training usually completely mask the fatigue affects. The test proposed by Rudnik is of interest in that he interferes with learning or, more exactly stated, he measures the facility with which the subject succeeds in resisting a strongly automatized habit. The subject is given a series of columns of figures and is asked to mark with a plus sign all numbers greater, and with a minus sign all those less than a given number during a one minute period. At the end of a minute he passes to a new column where he must reverse the marks. The relation of the work done during the first minute to that done in the second measures the effects of the break in the automatism. A group of clerical, library, and laboratory workers underwent mental tests for several days (from 6 to 16). Their results were worse at the end of the day's work for Rudnik's test, while in the memory and cancellation tests there was an improvement in the evening.—*A. B. Hunter* (Clark).

4771. **Rushton, W. A. H.** The normal presence of  $\alpha$  and  $\gamma$  excitabilities in the nerve-muscle complex. *J. Physiol.*, 1931, 72, 265-287.—This investigation confirms previous work showing the existence of distinct excitabilities called  $\alpha$  and  $\gamma$  in some dozen muscles of the frog. These excitabilities appear to correspond to distinct substances in the nerve-muscle complex and are not artifacts of experimentation.—*H. Hoagland* (Clark).

4772. **Salmon, A.** *Educhiamo la nostra volontà, il nostro carattere. Norme pratiche per la loro educazione.* (Education of the will and of the character. Practical norms for their training.) Bologna: Cappelli, 1932. Pp. 80.—The first part gives a short review of the physiopathology of will. The distinction is made between anomalous forms of will (such as the attitude of subduing suggestions, negativism, etc.) and the pathological forms. This part is followed by the practical part. The psychology of the will shows us the importance of feelings on the will; from this is derived the principle that the education

of will is based upon the education of the emotions. But emotions themselves are based upon ideas from which they derive their objectives; a strong affectivity without ideas leads to impulsive acts, not to voluntary actions. The first condition of the education of the will is a certain intellectual culture. Another essential condition is physical and nervous health. The education of the will as the term is correctly used is accomplished by the efforts of inhibition, continual exercise, a method of living, a firm discipline. The third part is dedicated to the education of the will in the infant.—*R. Calabresi* (Rome).

4773. **Shrapovitskaya, M. L.** [On the relation between motor and mental aptitudes.] *Psikhotekn. i psikhofiziol. truda*, 1930, 3, 21-25.—Brace's motor aptitude tests were given to 60 students who were specializing in physical culture training. No correlation was found between the results obtained and the results from a group of intelligence tests (completion tests, definitions, abstraction tests, etc.). It is true, however, that more than half of the subjects, a group of young monitors, seem to have stopped school from a lack of taste or aptitude for the school subjects or because of a taste for sports.—*A. B. Hunter* (Clark).

4774. **Soloviev, V. K.** [A study of fatigue in pharmacy assistants.] *Psikhotekn. i psikhofiziol. truda*, 1930, 111, 205-224.—For the purpose of studying professional fatigue, the author obtained test results for 20 pharmacy assistants over a period of 12 days, the following measurements being taken: results from the Bourdon cancellation tests, muscular force of the thorax and of the hand, measurements of the curve of the arch, and cephalographic measurements. In common with the majority of writers who have dealt with this difficult subject, Soloviev did not obtain any clearly defined decrease in performance of the tests at the end of the day's work. The Bourdon test even showed a marked improvement. The arch measurements seemed to be slightly weaker, but this result was not entirely constant. For workers on the afternoon shift in the heat of summer there was a definite lowering in the performance on the tests, but elsewhere the figures obtained were variable and difficult to interpret.—*A. B. Hunter* (Clark).

4775. **Spielrein, J.** [The method of artificial dis-automatization in psychological research.] *Psikhotekn. i psikhofiziol. truda*, 1930, 3, 105-128.—Automatization, which presumes a "degree of habit formation of such a nature that the activity is not slowed up or hindered during choice reactions," is a condition indispensable for satisfactory professional work. Walking is one of the most striking examples of automatized activities. Fatigue or certain pathological processes present in the subject, as well as modifications in external conditions, may cause a break in an automatized activity. For experimental study such a break may be caused artificially for the purpose of analyzing the phenomenon. The methods of experimental psychophysiology (the study of conditional reflexes, the destruction of certain brain areas, or the creation of obstacles in the normal reactions of animals) are examples of artificial dis-automatization. Automatized reactions should be



guarded against in the use of intelligence tests. In psychotechnics the use of the "active method" as advocated by the author, which consists in having the psychotechnician undergo apprenticeship in a trade, makes it possible for the psychological structure of a trade to be understood before the reactions characterizing the activity become automatized.—A. B. Hunter (Clark).

4776. Stewart, G. N. Measurement of the temperature of the skin. *Arch. int. de pharmacodynamie*, 1930, 38, 444-455.—The author describes his electric resistance thermometers (used with a Wheatstone bridge for balance) which are applied to the skin. Weak currents are used, and determinations to a hundredth of a degree are possible. Under the same external conditions and for the same subjects for a given cutaneous region, he has found that long interval values are constant.—A. B. Hunter (Clark).

4777. Wegner, W., & Roese, H. F. Eine Methode zum Studium des überlebenden Auges—Versuche am Herz-Lungen-Kopfpräparat. (A method of studying the still animate eye: experiments with the heart-lung-head preparation.) *Arch. f. Augenhk.*, 1932, 105, 639-663.—A description of an elaborate technique for studying the dog's eye in situ in the animate head, but isolated from the rest of the soma. The authors add the head to the Starling heart-lung preparation. Three dogs are required, one each for the head, the heart and lungs, and the blood. Respiration and blood pressure are artificially variable and graphic records of blood pressure and intra-ocular pressure are secured. There is little possibility of varying endocrine secretion in the blood stream, which is favorable to the study of drug effects. With circulation established, various reflexes of the head segment such as the pupillary, corneal, nostril quiver, and tongue retraction, are elicitable. There are seven figures, including apparatus and records.—S. M. Newhall (Yale). [See also abstracts 4614, 4640, 4651, 4684, 4688, 4702, 4725, 4730, 4780, 4813, 4838, 4915, 4990, 4996, 5012, 5074.]

#### PLANT AND ANIMAL BEHAVIOR

4778. Allison, J. B. Stimulation by hydrochloric acid and by the normal aliphatic acids in the sunfish *Eupomotis*. *J. Gen. Physiol.*, 1932, 15, 621-628.—In the sunfish, the stimulating efficiency of hydrochloric acid may best be related to the concentrations of hydrogen ions produced by that acid. The stimulating efficiency of the N aliphatic acids may best be correlated with the non-polar nature of a portion of the molecule, but it is necessary to consider the higher potential of the polar group of formic acid to account satisfactorily for its position in the series. Formic acid is more effective at lower concentrations than at higher. Per cent variation in response appears to be independent of the chemical environment to which the animal responded.—C. H. Graham (Clark).

4779. Andrejewa, E. W. Die elektrische Ladung und die Bewegungsgeschwindigkeit der Infusorien *Paramecium caudatum*. (The electric charge and

the rapidity of movement of the infusorian *Paramecium caudatum*.) *Kolloid Zsch.*, 1930, 51, 348-356.—(*Biol. Abst.* VI: 10002).

4780. Battle, H. I. A note on lethal temperature in connection with skate reflexes. *Contrib. Canadian Biol. & Fish.*, 1929, 4, 495-500.—(*Biol. Abst.* VI: 13139).

4781. Bellisai, I. Variazioni nella fototassi di *Artemia salina*. (Variations in phototaxis of *Artemia salina*.) *Pubbl. instit. biol. marina Tirreno*, 1929, 16, 227-230; also *Monitore zool. ital.*, 1929, 40, 227-230.—(*Biol. Abst.* VI: 10003).

4782. Bierens de Haan, J. A. Über das sogenannte "Waschen" des Waschbären (*Procyon lotor*). nebst einigen Bemerkungen über die Formen und die Bedeutung der tierischen Spiele. (Concerning the so-called "washing" of the raccoon (*Procyon lotor*), with some remarks on the forms and significance of animal play.) *Biol. Zentbl.*, 1932, 52, 329-343.—Food-washing by the raccoon is not a necessary preliminary to eating, as Whitney has pointed out. Careful observation of the washing behavior of the raccoon reveals that washing is a kind of play, and objects such as a ball may be washed over and over. What may be for the male a biting object may be for the female a washing object. Some of this play may serve to exercise the sensory apparatus of the animal, but the author believes that there must be recognized a category for play without any special utility.—E. R. Hilgard (Yale).

4783. Bingham, H. C. Gorillas in a native habitat. Washington: Carnegie Institution, 1932. Pp. 66.—The author and his wife were respectively observer and assistant on the joint expedition of 1929-30 of Yale University and the Carnegie Institution of Washington to Parc National Albert, in the Belgian Congo, for psychobiological study of the mountain gorilla. The party was in the field about two months, and established contacts with several bands of gorillas, which were studied by examining the spoor and by direct observation when possible. Descriptions were recorded of environment, migratory behavior, feeding and nesting habits, social behavior, insight, and receptivity. One large male was killed while charging the native guide, and full record was made of his physical characteristics.—R. R. Wiloughby (Clark).

4784. Buytendijk, F. J. J., & Fischel, W. Versuch über die Steuerung der Bewegungen. (Investigation of the direction of movement.) *Arch. néerl. de physiol.*, 1932, 17, 63-96.—The experimenters seek to discover whether rats can find a special, arbitrarily determined runway without the aid of sensory guides and with the necessity of varying the number of steps or leaps. First, using a straight, blind-ending running track with side roads leading off from it, it was found that the rat quickly learned to take the one leading to the nest. This accomplishment was found to be independent of the number of side roads and was apparently not determined by olfactory stimuli. The experiment was next repeated with a circular running track from which side roads radi-

ated. The circular track could be set in motion, thereby varying the number of steps to the correct side road and making more difficult the use of environmental cues. Results essentially similar to those from the stationary course were found, and by special variations of the environmental settings it was discovered that use of the surrounding walls was made by the rat in determining the correct side road. When this was taken away by revolution of the experimental setting, errors appeared in the rat's choices and strong evidence of the influence of olfactory cues was adduced. Further experiments in which distances between beginning and end point were varied now regularly and now irregularly showed that the animals are capable of forming habits of choosing the correct side road without the customary exteroceptive and proprioceptive stimuli serving as guiding factors.—C. P. Stone (Stanford).

4785. Carpenter, C. R. Relation of the male avian gonad to responses pertinent to reproductive phenomena. *Psychol. Bull.*, 1932, 29, 509-527.—72 titles, historical as well as recent, are reviewed critically. It appears certain that some hormone produced by the testis is fundamental to normal motivation of sexual activity; but most of the observations reported lack conclusiveness, and the special need is for improved technique of operations.—J. F. Dashiell (North Carolina).

4786. Cole, W. H. Stimulation by the salts of the normal aliphatic acids in the rock barnacle *Balanus balanoides*. *J. Gen. Physiol.*, 1932, 15, 611-620.—Stimulation of the rock barnacle by the sodium salts of the first seven normal aliphatic acids has been studied at several different concentrations of each salt. Criterion of response was the per cent closure of valves at successive 2 minute intervals. In general, the stimulating efficiency increases with concentration. Heptylate is most effective for 40-50% closure. Stimulating efficiency is correlated with the potential of the anion of the acid and with the concentration of that ion near or at the receptor surface as determined by the length of the carbon chain.—C. H. Graham (Clark).

4787. Commins, W. D., & Stone, C. P. Effects of castration on the behavior of mammals. *Psychol. Bull.*, 1932, 29, 493-508.—The effects are reviewed under the headings: basal metabolism; nervous system; reflex action; voluntary activity; sex behavior in male and in female; sex reversal; and learning. A bibliography of 75 titles is covered.—J. F. Dashiell (North Carolina).

4788. Del Duca, M. L'epitelio della cornea nei vertebrati. (The epithelium of the cornea in vertebrates.) *Boll. d'ocul.*, 1931, 10, 1091-1141.—From a histological study of the epithelium of the cornea of 70 animals of 5 classes of vertebrates, it was found that there were considerable differences in the thickness of the entire epithelium, in the number of cell layers, and in the form and disposition of the cells. The author discusses the results comparatively, and tries to explain the causes of the differences in terms of conditions of life and environment.—R. Calabresi (Rome).

4789. Fitzpatrick, F. L., & Stolba, S. L. Segmentation in earthworms, resulting from inability to regenerate a portion of the ventral nerve cord. *Proc. Iowa Acad. Sci.*, 1929, 36, 361-363.—(*Biol. Abst.* VI: 10008).

4790. Freudenstein, K. Das "Hobeln" der Bienen. (The "planing" of bees.) *Biol. Zentbl.*, 1932, 52, 343-349.—The question is raised whether the "planing" of bees is evidence of a play instinct. The examination of other evidence, such as the flight of young bees, leads the author to the conclusion that none of the facts of bee life point clearly to a play instinct.—E. R. Hülgaard (Yale).

4791. Galtsoff, P. S. The rôle of chemical stimulation in the spawning reactions of *Ostrea virginica* and *Ostrea gigas*. *Proc. Nat. Acad. Sci.*, 1930, 16, 555-559.—(*Biol. Abst.* VI: 10010).

4792. Gemelli, A., & Pastori, G. Ricerche sulla rieducabilità di animali scerebrati. (Experiments on the reeducability of decerebrated animals.) *Atti Soc. ital. prog. sci., XIX riunione*, 1931, 2, 365.—The experiments of the author show that a very small residue of the cortex is enough for chickens and pigeons to retain the power to recognize colors and to be susceptible to relearning.—R. Calabresi (Rome).

4793. Heron, W. T. Habit formation and higher mental processes in the rat. *Psychol. Bull.*, 1932, 29, 461-492.—A review of 188 titles covering the years 1928 to 1931, under the following heads: technique and apparatus, including studies of reliability of mazes; discriminating ability, for different senses; cues used in learning, a problem lately to the forefront; miscellaneous factors related to learning efficiency, as age and sex, drugs, length and type of maze, motivation, operations on the nervous system; higher mental processes; studies on the fundamental nature of learning.—J. F. Dashiell (North Carolina).

4794. Kuo, Z. Y. Ontogeny of embryonic behavior in Aves. II. The mechanical factors in the various stages leading to hatching. *J. Exper. Zool.*, 1932, 62, 453-487.—A study of causal factors related to hatching from the beginning of incubation to the escape from the shell. The author notes as significant the following critical stages: (1) orientation of the embryo; (2) torsion and flexion; (3) lying of the embryo at the large end; (4) the stage of fixation of body position; i.e., embryo lies with its back on the yolk sac, its body axis is at a right angle to the long axis of the egg, the head being directed to the left of the observer; (5) changes in the positional relation between the embryo and the yolk sac, i.e., the yolk sac comes over to cover the ventral side of the embryo; (6) turning of the body so as to lie lengthwise of the egg (in turning of the body, the neck is not involved, and the head position results in a double bending); (7) protrusion of the neck into the air chamber under the membranes. The behavior characteristic of the developing chick is described particularly with reference to the initial turning of the body in the shell and the activity directly antecedent to hatching.—L. Carmichael (Brown).

4795. Luna, E. *L'architettura degli organismi animali*. (The architecture of animal organisms.) *Scientia*, 1931, 50, 157-164.—The author brings forth general considerations, supported by examples, in favor of theories which see in animal organization the tendency to segmentary disposition, either by metameric or by cyclomeric segmentation.—*R. Calabresi* (Rome).

4796. Molitor, A. *Neue Beobachtungen und Experimente mit Grabwespen. II.* (New observations and experiments with sand-wasps. II.) *Biol. Zentbl.*, 1932, 52, 449-468.—Observations particularly in reference to the supply of caterpillars for the young larvae to feed on.—*E. R. Hilgard* (Yale).

4797. Mowrer, O. H. A note on the effect of repeated hypnotic stimulation. *J. Abn. & Soc. Psychol.*, 1932, 27, 60-62.—A rooster, susceptible to hypnosis, was hypnotized three times daily from May 9 to 28 (one day, May 18, omitted). The duration of the trance dropped very markedly, in the end virtually to zero.—*C. H. Johnson* (Boston Psychopathic Hospital).

4798. Nakazima, S. Notes on the response of the silkworm (*Bombyx mori* L.) to odors. III. On the olfactory sense of the adult moth. *Bull. Miyazaki Coll. Agric. & Forestry*, 1931, 3, 129-141.—(*Biol. Abst.* VI: 15953).

4799. Parr, A. E. Sex dimorphism and schooling behavior among fishes. *Amer. Nat.*, 1931, 65, 173-180.—The writer has previously attempted to show that the behavior of individual fishes in schools may be explained as a simple set of automatic reactions. In the present paper he argues on theoretical and experimental grounds that the schooling instinct is inhibited to the greatest extent by the sex instinct in those species which show the greatest change in the color of the male during mating season.—*D. J. Ingle* (Minnesota).

4800. Reisinger, L. *Hypnose der Vögel*. (Hypnosis of birds.) *Biol. Zentbl.*, 1932, 52, 402-429.—Experiments in hypnotizing numerous birds, including cross-bill, rice-bird, siskin, and others, showed the domestic hen to be the most satisfactory to use for the experiments, while a small parrot was the hardest to hypnotize. In one set of experiments the birds were hooded, in order to demonstrate that sight was not necessary for the production of the hypnotic trance. Hypnosis in birds is compared with the corresponding state in man. There are 18 references.—*E. R. Hilgard* (Yale).

4801. Segaar, J. *Zentrale Innervation bei normalen und "manege"*—Krebsen. (Central innervation in normal and rotating crustaceans.) *Tijdsch. Nederland. Dierkund. Vereen.*, 1929, 1, 113-117.—(*Biol. Abst.* VI: 13168).

4802. Skinner, J. T., Van Donk, E., & Steenbock, H. Manganese as a factor in reproduction. *Amer. J. Physiol.*, 1932, 101, 591-597.—Female rats reared on whole milk fortified with copper and iron did not attain sexual maturity as early as those receiving the same ration supplemented with manganese. Those receiving a manganese supplement did not exhibit

normal oestrous cycles.—*C. Landis* (New York Psychiatric Institute).

4803. Tang, P. S. The effects of CO and light on the oxygen consumption and on the production of CO<sub>2</sub> by germinating seeds of *Lupinus albus*. *J. Gen. Physiol.*, 1932, 15, 655-665.—Seeds of *Lupinus albus* are inhibited in their oxygen consumption to a degree of 36% when a mixture of 24% oxygen and 76% CO is applied in darkness. This inhibition is removed when the seeds are illuminated. If, after this period, the seeds are returned to air, oxygen consumption is accelerated. The production of CO<sub>2</sub> is not inhibited by CO.—*C. H. Graham* (Clark).

[See also abstracts 4633, 4651, 4685, 4712, 4713, 4715, 4716, 4718, 4730, 4741, 4742, 4750, 4769, 4777, 4905, 5025.]

#### EVOLUTION AND HEREDITY

4804. Marchiafava, E. *L'eredità nella patologia*. (Heredity in pathology.) Turin: Unione Tipografica, 1930. Pp. 17.—This study is the 13th chapter of the general part of a work on pathological anatomy edited by P. Foà. The first part is given over to the general theories of heredity: the theory of germ plasm, Mendel's experimental study, the application of Mendel's doctrine, the heredity of normal qualities of man, the problem of the heredity of acquired characteristics. The second part contains a general part in which are explained and discussed the theories of pathological heredity, the origin of the factors of hereditary diseases, direct, indirect, familial, atavistic heredity, etc., the hereditary nature of deformity and disease; and a special part in which are reported the known data on the heredity of different diseases.—*R. Calabresi* (Rome).

4805. Morgan, T. H. *The scientific basis of evolution*. New York: Norton, 1932. Pp. 286. \$3.50.—*R. R. Willoughby* (Clark).

4806. Sanders, M. Similarities in triplets. *J. Hered.*, 1932, 23, 225-234.—Intensive data are presented for two sets of monozygotic triplet girls, one set being 4½ years of age, the other set 7½. Anthropometric measurements, birth membrane data, finger and palm print data, and Binet IQ's are reported. Although the first set were born with two choria, they resemble each other a little more closely in mentality and physique, particularly in finger patterns, than do the second set, who were born with one chorion. IQ's of the first set were 95, 93, and 90; of the second set, 88, 88, and 80.—*B. S. Burks* (Stanford).

4807. Swab, C. M. Albinism in the progeny of negro and white parents. *Amer. J. Ophthalm.*, 1932, 15, 306-309.—A case history and clinical examination.—*C. W. Darrow* (Behavior Research Fund, Chicago).

[See also abstract 4643.]

#### SPECIAL MENTAL CONDITIONS

4808. Adler, A. *Die Systematik der Individualpsychologie*. (The system of individual-psychology.) *Int. Zsch. f. Indiv.-psychol.*, 1932, 10, 241-244.—Adler sharply criticizes several of his followers



(unnamed) who have "weakly conceded" that individual-psychology is permeated with philosophic conceptions and that it lacks an innerly consistent and complete systematization. "Individual-psychology is philosophy," Adler agrees with William Stern. Fundamental conceptions are presented. The soul (*Seele*) is a part of life, which must carry all movable constructions of life within itself. The self (*das Ich*) is a self-created composite which makes use of all possibilities, of the evaluations and impressions of its own shortcomings, of the validity of organs, etc. The beginnings of any reaction must be found within the self, endogenous factors, in the form of social traits developed through experiences mostly of early childhood. Exogenous factors, such as the social environment, etc., must be also considered. The personality is always recognized in reactions which are really a form of answers to life problems. An interpretation of a personality's reactions must therefore of necessity be teleological, and the end toward which the reactions of the self were directed is the all important fact.—O. N. de Weerd (Beloit).

4809. Allendy, E. Various instincts and their development. *Psychoanal. Rev.*, 1932, 19, 310-318.—The instincts mentioned are the nutritive, sexual, egoistic, social, death, etc. The thesis seems to be that these appear successively rather than simultaneously, but that each new instinct operates in combination with the patterns set up by those which have previously been functioning. According to the way in which instincts are satisfied or not satisfied many different patterns of adaptation develop in individuals. Freudian theories are partly, but not wholly, accepted in this discussion of instincts.—P. Blanchard (Philadelphia Child Guidance Clinic).

4810. Banerji, M. Psychology of secrets. *Indian J. Psychol.*, 1932, 7, 41-57.—The author describes the evolution of consciousness and genesis of mind and sketches briefly his own system of psychology and theory of perception before proceeding to the problem of unfolding the "secret of secrets." He tells us that some of the interests, thoughts, and acts of the child come into conflict with those of others. "The growing personality therefore learns to hide his thoughts and control his speech and actions. The things which he dares not communicate to others and tries to keep to himself become his secrets." The conscience develops as a censor. Self-criticism leads to the formation of the unconscious. Sexuality plays a major part in the psychology of secrecy. Inhibition leads to emotion and repression to amnesia.—E. H. Kemp (Clark).

4811. Barton, J. W., & Ingle, D. J. Determining mental instability. *J. Abn. & Soc. Psychol.*, 1932, 27, 52-59.—Questionnaires including described situations of adjustment and of awareness were submitted to 332 students at the University of Idaho. Of the 150 questions used, 95 pertained to the present life of the examinee, 51 referred to his childhood, and the balance concerned matters of opinion. If fewer than 25% of the students answered in the affirmative for the questions in the first two groups, the question was adjudged to have deficiency significance. A value of

one was assigned to each question answered unfavorably, and anyone making a score of 20 or more was classified as neurotic. There was no reliable difference between the four college classes, the average score ranging from 14.48 for sophomores to 15.26 for juniors.—C. H. Johnson (Boston Psychopathic Hospital).

4812. Bien, E. The downward bent. *Psychoanal. Rev.*, 1932, 19, 270-296.—Three cases of compulsive neurosis are reported in which, in addition to all the compulsive symptoms, there was the desire of the patient to leave the social class into which he had been born and of which he was a member by virtue of education and profession, in order to descend into the slums and live a life of degradation. This desire to descend in the social scale is called "the downward bent." In all three cases, there was some degree of impotency with the wife, homosexual tendencies (mostly repressed), and ability to attain full potency only with harlots, servant girls, or dirty or degraded women. The patients led a sort of double life, living according to their profession and social profession in the eyes of the world, but in reality or phantasy also having a secret life in which they escaped to consort with degraded and filthy persons and in degraded and filthy surroundings. The desire for degraded women arose from different psychosexual complexes in the three cases. In one patient it represented a wish to degrade a hated mother and get revenge on her; in another case the patient felt his mother had been degraded by his father and the association with degraded women expressed the incest wishes to the mother, these women being mother substitutes; in a third case, impotency with the wife was due to identification of wife and sister, the patient having repressed incest desires to his own sister and being able to feel sexual desire only for degraded women who were not identified with the sister.—P. Blanchard (Philadelphia Child Guidance Clinic).

4813. Biermann, B. Der Hypnotismus im Lichte der Lehre von den bedingten Reflexen. (Hypnotism in the light of the conditioned reflex theory.) *J. f. Psychol. u. Neur.*, 1929, 38, 265-281.—Three questions are concerned in the problem of hypnotism: the physiological nature of the hypnotic state, the mechanism of the hypnogenic factors, and the relation between hypnosis in man and the pretended hypnotic state in animals. The author discusses all three from the point of view of conditioned reflexes. Sleep corresponds to a diffusion of inhibition throughout the cortex and the lower regions. Hypnosis is distinguished from sleep by the maintenance of a waking point which insures a special rapport (for example, a special susceptibility towards the hypnotist). The various forms and degrees of hypnosis in man and in the higher animals are dependent upon the diffusion and localization of the inhibiting processes. In slight hypnosis, the inhibition is localized in the motor zone, whence we get the closing of the eyes, catalepsy, and automatisms, while consciousness and memory are retained. Hypnosis can be caused by monotonous stimuli, which fatigue the neurones affected by the inhibition, as easily as by strong stimuli. Indeed,

the second method is rarely used for human beings, for they are especially sensitive to conditioned, inhibiting stimuli, such as the suggestion of sleep through manipulations or words. Biermann defines human hypnosis as "a partial, conditioned reflex sleep." Every stimulus which is followed several times by an inhibition acquires an inhibiting power (becomes a negative conditioned reflex), and the ease of producing hypnosis depends upon the number of times such a condition is caused. Biermann considers that the pretended hypnotic state in the lower animals is due to an innate reflex which is given in response to certain strong stimuli for the purpose of protection through inertia or sleep (Pavlov). Hypnosis in dogs is a transitional stage between that of man and the pretended hypnosis in animals. In slight hypnosis the salivary response is still possible, but there is no movement. The author describes some experiments in which dogs were put to sleep when certain sounds were heard (the reaction being the result of methodical training), and then were awakened when the tone *ut* was sounded, which had been established as a conditioned reflex connected with nutrition. Other sounds, though much louder, would not awaken the dogs. If the *ut* tone was given with the inhibiting sounds, the dogs remained awake.—A. B. Hunter (Clark).

4814. Blankfort, M. Why we don't know much about hypnosis. *J. Abn. & Soc. Psychol.*, 1932, 26, 390-394.—Because of certain ideas associated with hypnosis, modern laboratories have looked with disfavor on attempts to experiment along these lines. The very induction of an hypnotic state makes it difficult for the "tough-minded psychologist" to dissociate the black history of hypnotism from its potentialities as an experimental subject. The uses of passes of the hand and stroking suggest the vaudeville performer. The experimentalist finds it difficult to get enough subjects because the ancient abracadabra is still potent enough to frighten. There are other more important factors which reside in the peculiar quality of the phenomenon itself, and which practically force the psychologist to disregard hypnosis. There is no objective yardstick by which the different stages of the trance can be measured. It is still a matter of conjecture whether the trance is induced by the operator or by the subject. The operator is never sure whether his subject is going to allow him to suggest what he ordinarily would.—C. H. Johnson (Boston Psychopathic Hospital).

4815. Broggi, E. Contributo allo studio degli ipnotici. Ricerche farmacologiche e cliniche su due derivati dell'acido barbiturico. (Contribution to the study of hypnotics. Pharmacological and clinical studies of two derivatives of barbituric acid.) *Rass. stud. psichiat.*, 1932, 21, No. 2.—Study of two derivatives of butioric acid and whether or not they are associated with the bromide radicals known by the name of Neodown.—G. C. Ferrari (Bologna).

4816. Buchanan, S. Freudian dynamics. *Psyche*, 1932, No. 48, 13-29.—Regardless of the fact that psychoanalysis is naïve and confused, it is the only psychology which takes symbols as its subject-mat-

ter. Thus it recovers a loss suffered with the degradation of the medieval seven liberal arts. Psychoanalytic theory retains much of the original poetic quality of genuine science, regardless of its naïveté. However, it has the marks of a young art in that symbols are taken for things, and discussion of them is couched in mysterious dynamic terms. But, if psychoanalysis is to become more capable in the discovery of symptoms and successful in diagnosis, it must give closer attention to the sciences of symbolism once found in the seven liberal arts. The symbolic side of biopsychological analogy, now rather confused, could thus be clarified so as to dispense with the confusion now found in the use of dynamic terms.—T. R. Garth (Denver).

4817. Dynés, J. B. An experimental study in hypnotic anaesthesia. *J. Abn. & Soc. Psychol.*, 1932, 27, 79-88.—This study shows quite clearly that those bodily mechanisms represented by respiratory and cardiac activity show little or no disturbance in their normal rate and rhythm following sensory stimuli in the hypnotic trance. In the normal waking state these same indicators invariably showed a disturbance in both rate and rhythm. The verbal report of the subjects as to the sensations perceived was substantiated by the objective record in both the waking and trance states.—C. H. Johnson (Boston Psychopathic Hospital).

4818. Eder, M. D. The myth of progress. *Brit. J. Med. Psychol.*, 1932, 12, 1-14.—Mankind looked for progress through science during the nineteenth century, but now looks toward a humanism guiding science. Psychoanalysis suggests the discipline of self-knowledge needed to see through our myths.—E. R. Hilgard (Yale).

4819. Fernberger, S. W. Further observations on peyote intoxication. *J. Abn. & Soc. Psychol.*, 1932, 26, 367-378.—In order to ascertain the validity of reports on peyote as observed by Vincent M. Petruccio in his study of the Delaware Indians, nine mature members of the faculty of the University of Pennsylvania submitted together to extreme peyote intoxication. Confirmation was made of the ability to control the visual manifestations of peyote intoxication as reported by the Indians. It was demonstrated that the drug is a strong anti-aphrodisiac, which would account for the totally non-sexual character of the peyote ceremonies. A hint is made of a possible explanation of the belief in the approach to the God-head described by the Indians, in terms of the apparent split personality between rational conscious processes and the sensory conscious processes.—C. H. Johnson (Boston Psychopathic Hospital).

4820. Freud, S. Libidinal types. *Int. J. Psychoanal.*, 1932, 13, 277-280.—We can distinguish three main libidinal types: the erotic, the obsessional and the narcissistic. There are also mixed types: erotic-obsessional, narcissistic-obsessional, erotic-narcissistic. The characteristics of these types are described. The different types are developed in so far as one or two of the three main ways of expending libido have been

avored at the expense of the others.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4821. **Freud, S. Female sexuality.** *Int. J. Psychoanal.*, 1932, 13, 281-297.—The boy, in his psychosexual development, does not have to change from the genital zone of the penis nor from the mother as the chief love object. The girl's first genital zone is the clitoris, which must be changed to the vagina as the chief genital zone for normal development; her first love-object is the mother and again she must change to the father as love-object for normal development. Freud finds in his analyses of women that the persistence of the clitoris as the genital zone and of the mother as love-object often extends into later years of childhood than was previously supposed, also that difficulty in making these changes is at the root of hysteria and paranoia in women. At this point in the development of female sexuality, three courses are open to the girl: she may acknowledge her castration and, rebelling against it, turn her back on sexuality; she may cling to her desire for masculinity, cherishing the phantasy of being a man, and either choose a homosexual love-object or live as if she were a man; she can achieve normality only by giving up her masculinity strivings, taking the father as love-object and accepting her femininity. The influences of the pre-Oedipal and Oedipus stages upon the adult adjustments of women in marriage are discussed in some detail, as well as the differences between male and female development in young children, and the influences in the family relationships which affect the girl's development. There is a critical commentary on the previously published psychoanalytic literature on female sexuality.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4822. **Frohman, B. S. Occlusal neuroses.** *Psychoanal. Rev.*, 1932, 19, 297-309.—Pyorrhea in many cases is not due to such physical causes as bacterial action, gastrointestinal disturbances, etc. The occlusal neurosis, habitual grinding of the teeth, may be the chief cause. Both dental and surgical treatment and a short, superficial analysis are necessary in the occlusal neuroses. Illustrative cases treated by these methods are cited. One case is of particular interest, in reporting the grinding together and setting of the teeth as a symbolic expression of the patient's setting herself resolutely to control her sexual desires and keep them inhibited.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4823. **Getson, P. Dental irritation as defense phenomena.** *J. Nerv. & Ment. Dis.*, 1932, 76, 105-109.—Two cases are cited with comments.—*C. R. Atwell* (Boston Psychopathic Hospital).

4824. **Glover, E. On the aetiology of drug-addiction.** *Int. J. Psychoanal.*, 1932, 13, 298-328.—The first part of the paper gives an historical review of the psychoanalytic literature on this subject, showing how concepts of etiology have changed as psychoanalytic theories have been changed, modified and elaborated. The second part presents material from Glover's own recent cases of drug-addiction. The third part formulates his present conclusions as to etiology, an important one being that drug-addiction

is not so much a regression as a defense against regression and psychotic reactions. In this connection, benign aspects of drug-addiction are discussed.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4825. **Grewal, K. S. The effect of mitragynine on man.** *Brit. J. Med. Psychol.*, 1932, 12, 41-58.—Symptoms are described which result from taking mitragynine acetate and the powdered leaves of *Mitragyna speciosa*. Experiments on choice reaction time, heat tolerance, ergographic record, steadiness test, dotting test, and electrical resistance of the skin were conducted before and after taking the drug. There were no control tests. There is a suggestion that mitragynine increases the speed of visuo-motor reaction, although the leaves seemed to have the opposite effect. The only significant result of taking the powdered leaves was the increased work shown by the ergographic records.—*E. R. Hilgard* (Yale).

4826. **Horney, K. The dread of woman.** *Int. J. Psychoanal.*, 1932, 13, 348-360.—Men relieve their dread of contact with women by glorifying women or disparaging them. Male homosexuality has as one of its bases the desire to escape from or deny existence of the female genital. This same dread of the vagina appears in the dreams of heterosexual as well as homosexual males, in analysis. The mother is the person who frustrates the pregenital desires of the boy, through weaning and toilet training, thus rousing hostility against her as a frustrating person, together with an anxiety due to frustration. In the boy's genital and Oedipus phase, he desires to penetrate the mother's vagina, but besides the anxiety roused by fear of the father in connection with these wishes toward the mother is the fear that his penis would not be large enough to satisfy the mother. Thus a feeling of inadequacy and impotency is associated with the idea of the penetration of the female vagina. Thus the dread of being rejected and derided by women develops in all men, persisting in different degrees of intensity and reacted to in different ways.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4827. **Jones, V. Syllabus in the psychology of character.** Worcester: Author, 1932. Pp. 78.—The syllabus is divided into 23 topics, each suitable for a single lesson. Each topic includes 3 to 9 questions intended to stimulate discussion, and about the same number of references from which material for these discussions may be gathered.—*R. R. Willoughby* (Clark).

4828. **Kattentidt, I. Die Mode als eine Angelegenheit in psychischen Hygiene.** (The mental-hygiene aspects of style in dress.) *Zsch. f. psych. Hygiene*, 1932, 5, 7.—The gist of the article is that style is one of the expressions of the common will or mind from which no one can withdraw permanently without injury to his life-energy. By means of his style in clothes, especially on festive occasions, everyone announces what he has and what he can do, and "the individual note" distinguishes his personality from the crowd. The external clothing is "nearer" to the personality than the "inner layers." Unfashionable clothes shut one out from the company. In



spite of all courage, retreat is inevitable, and this exhausts mental energy and joy in work and life. The less the understanding of the psychological factors involved, the greater is their effect. Paradoxically, the more closely we follow fashion, the freer we are.—*M. E. Morse* (Catonsville, Md.).

4829. **Korczynska, Z.** O wpływie sugestywnym sytuacji poprzedniej na następną. (The suggestive influence of preceding situation on the following situation.) *Polskie Arch. Psychol.*, 1930, 3, 76-90.—Starting with a definition of suggestion as the influence exercised by a certain psychological state on the following state in such a manner as to place the latter out of harmony with the actual situation in which the subject finds himself, Korczynska set out to find an experimental procedure which might determine suggestibility in a subject and its degree. She carried out three series of experiments on 28 subjects. In the first series, the only one for which the results are given in this article, she used three charts: on the first one (A) ten words were given which were correctly spelled; on the second (B) ten words were incorrectly spelled; and on the third (C) seven words were spelled with mistakes and three without. The reading of chart A, by creating in the subject a certain attitude in relation to the text read, might so influence the following reading that the subject would read the words as though they were written correctly. However, for chart C, suggestion was excluded, in that the subject was warned that there were certain incorrectly spelled words. The errors committed in this third chart should indicate, according to the author, the normal tendency to read words correctly in spite of their faulty orthography. Assuming that the number of words incorrectly read in the second chart expressed the suggestibility of the subject plus this normal tendency, Korczynska obtained the coefficient of suggestibility,  $S$ , as equal to  $\frac{b}{10} - \frac{c}{7}$  ( $b$  and  $c$  indicating the number of words incorrectly read on charts B and C). Classification of the 28 subjects according to their coefficients of suggestibility varied from 0.70 to -0.31, three main groups being distinguishable: strongly suggestible persons (subjects 1 through 10, having  $S = 0.70$  to 0.27); slightly suggestible persons (subjects 11 through 21, having  $S = 0.19$  to 0.02); and persons resisting suggestion (subjects 22 through 28, having  $S = -0.11$  to -0.31). The negative coefficients were practically identical with zero. In the two other series, the words were replaced sometimes by colors and sometimes by geometrical designs, but these experiments did not give as clear-cut results as were found for the first series. The only conclusion drawn was that the number of errors committed with colors was nearly double that found for designs. Taking into account the theoretical objections that may be raised, the author emphasizes, nevertheless, the practical importance of her results.—*A. B. Hunter* (Clark).

4830. **Kronfeld, A., & Voigt, G.** Der V. Internationale Kongress für Individualpsychologie. (The fifth international congress for individual-psychology.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 537-551.

—The article is a summarizing report on the congress meeting in Schomberg near Berlin in September, 1930. Alfred Adler gave the opening address on *The meaning of life*—"only that which is socially useful has permanent value." General topic for the first day: *Individual-psychology and medical practice*. Discussions: Adler, *Nature and treatment of compulsion neuroses*; Kronfeld and Neuer, *Selection of neuroses*; L. Seif, *The problem of psycho- and somatotherapy in neuroses*. Other papers presented discussions on endocrine disturbances, internal medicine and individual psychology, frigidity, phobias, conflict neuroses, mental and narcotic excitement (Rausch). Second day, forenoon: Screen presentations from the practice of individual psychology; crippled children; a mongoloid case; care of children in a training home (*Erziehungsheim*). Afternoon: individual psychology and the school; a discussion by Adler of the overindulged child, followed by papers on theory and practice. The closing day: individual psychology and social psychology.—*O. N. de Weerd* (Beloit).

4831. **Künkel, F.** Grundzüge der politischen Charakterkunde. (Foundations of a political science of character.) Berlin: Junker & Dünhaupt, 1931.—Künkel brings to a climax in this book a growing tendency to break away from Adler. In the main, Künkel places the individual-psychology of Adler in opposition to the social psychologies of Le Bon, Stollenberg, Stiellers, et al. He then presents his own science of personality as taking a middle ground between these two fields. "We have now an individual-psychology which, while also taking account of the relationships of the individual to society, at the time remains fundamentally a psychology of the individual."—*O. N. de Weerd* (Beloit).

4832. **Künkel, F.** Sex and society. *J. Abn. & Soc. Psychol.*, 1932, 27, 1-28.—Difficulties of the sexual function are symptoms of generalized disorders and disorientations in the social and human sense, but they are necessary symptoms in so far as disorders of the social sense cannot exist without concomitant disturbances in the sexual life. Four seemingly contrary examples are given to illustrate how they are consistent with the tenets of individual psychology.—*C. H. Johnson* (Boston Psychopathic Hospital).

4833. **Lawton, G.** Psychical researchers as spiritual theologians. *Psyche*, 1932, No. 48, 43-66.—Only in a few exceptional cases have psychical research societies failed eventually to become a high type of spiritualistic organization. The psychical researcher usually rationalizes spiritualism. The more philosophical individuals serve as theologians of the spiritual religion. Physicists have been more easily converted to spiritualism than psychologists or biologists, so it is found. Present-day researchers usually have a bias in the direction of spiritualism.—*T. R. Garth* (Denver).

4834. **Lazarsfeld, R.** Zur individualpsychologischen Traumlehre. (Consideration of the individual-psychological conception of dreams.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 587.—Primitive man would

not automatically avoid an object or situation which had frequently harmed him. The avoiding reaction is based upon an abstractly conceived function of fear. Conscious perception of dangers is a rationalization of the spirit. When an individual is afraid of an anticipated event, the dream consciousness which is a primitive function of the organism can only grasp the primitive fear reactions, but not the biologically higher level processes of clear thinking. The thoughts loosely associated with the fear are then brought together by the primitive dream consciousness which utilizes them in preparing itself for the anticipated ordeal by constructing trial situations.—*O. N. de Weerdt* (Beloit).

4835. **Lindberg, A.** Über die Wirkung von Lecithin auf die Grosshirnrinde. I. Einfluss chronischer subkutaner Einverleibungen von Lecithin auf die höchste Nerventätigkeit. (The action of lecithin on the cortex. I. Influence of chronic sub-cutaneous assimilation of lecithin on the highest nerve activity.) *J. f. Psychol. u. Neur.*, 1931, 42, 465-476.—(*Biol. Abst.* VI: 10079).

4836. **Maspes, E., & Canziani, G.** Un perfezionamento della prova farmaco dinamica dell'atropina. (Perfection of pharmaco-dynamic test of atropine.) *Riv. pat. nerv. e ment.*, 1932, 39, No. 1.—Description of an attempt to simplify the well-known method of Danielopolulos.—*G. C. Ferrari* (Bologna).

4837. **McConnell, U. H.** Symbolism as a mental process. *Psyche*, 1931, No. 46, 37-51.—This is an attempt to dissociate the problem of symbolism from its anthropological and psychological issues. Freud's attempt to derive anthropological facts from data obtained in an entirely different field is unsound scientific procedure. He operates in a vicious circle. There is no proof that "repression" is a factor in the symbolic processes of primitive custom. Symbolism occurs where logically organized thought is lacking, and is rather a difference in degree of organization of thought and behavior, than in kind. It is valuable in depicting mental attitudes at certain stages of man's adaptation to environment.—*T. R. Garth* (Denver).

4838. **Moxon, C.** A new theory and therapy of the will. *J. Abn. & Soc. Psychol.*, 1932, 27, 48-51.—An exposition of the writings of Otto Rank in which the aspect of restoring the mental balance of people made ineffectual by conflict, doubt and despair is particularly stressed.—*C. H. Johnson* (Boston Psychopathic Hospital).

4839. **Müller, J.** A contribution to the problem of libidinal development of the genital phase of girls. *Int. J. Psychoanal.*, 1932, 13, 361-368.—The belief is expressed that the change from clitoris to vagina as chief genital zone occurs earlier in girls than is usually supposed, and that this is true even of women who later are frigid, with the clitoris emphasized, with strong castration complex and masculine character traits. Material from observation of children and cases analyzed is offered in evidence. The thesis is that the clitoris is set up as the chief vaginal zone when little girls struggle to repress vagi-

nal strivings. This makes vaginal strivings the chief ones before those of the clitoris, a reverse of the usual statement that clitoris strivings appear first and vaginal strivings later.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4840. **Murray, J. M.** Anthropological significance of the Oedipus complex. *Psychoanal. Rev.*, 1932, 19, 327-330.—In the change from animal to human life and to culture, the animal rutting season was replaced by capability of sexual activities at all times. With the prolongation of family life in humans, the early sexuality of the young, carried over from animal to human species, became a part of the family emotions. Tabus against incest and adultery developed, along with the Oedipus complex and castration fear. The Oedipus conflict and castration fear arose from the conflict over the early sexual activity and the need to inhibit sexual desires due to dependency upon parents.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4841. **Oberndorf, C. P.** Analysis of disturbances in speech. *Int. J. Psychoanal.*, 1932, 13, 369-374.—Report of the significance of specific speech disturbances that appeared during analysis of certain patients, as revealed by the associations of the patients with the stammer, the coining of a new word, or other slips of speech.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4842. **Rühle-Gerstel, A.** Die entthronte Libido. (The dethroned libido.) *Int. Zsch. f. Individ.-psychol.*, 1930, 8, 558-566.—A review of Freud's *Das Unbehagen in der Kultur* (Discomfort in Culture), with a comparison of the Freudian and Adlerian conceptions. Freud posits a new non-erotic drive to aggression and destruction, a disruptive force in society. Society and culture arise out of the necessity for working and living together. The libido serves as a cementing force in opposition to the destructive force of the death-dealing aggressive drive. Thus there are two main drives, with the libido assigned the less important rôle. When in conflict the libido drive and passion set aside the aggressiveness, happiness and satisfaction are not aroused but according to general experience a bad conscience. This conscience is not to be confused with the conception of popular religious usage. It is in reality "social fear" born of the repression of the Oedipus complex. Uneasiness and discomfort are therefore man's lot when he actively participates in social movements. These constructions of man's nature are contrasted with the Adlerian concepts of social sense (*Gemeinschaftsgefühl*), drive for recognition (*Geltungsstreben*) and sense of inadequacy.—*O. N. de Weerdt* (Beloit).

4843. **Schlesinger, H.** Kaffeesucht. (Coffee addiction.) *Wien. klin. Woch.*, 1931, No. 30, 970.—A 49-year-old man had as a child been provided daily by his mother during her absence with 1.5 litres of café-au-lait. Later, as he became independent, he raised the daily amount to 2, 3, 8, and finally to 10 and 12 litres (3-4 litres milk,  $\frac{1}{4}$  kg. coffee beans, and  $\frac{3}{4}$  kg. malt coffee); no diabetes insipidus resulted. The fluid intake was immediately reduced to 2-2.5 litres without discomfort. The stomach and intestines

tines were normal on X-ray examination, in spite of the great consumption of liquid. The father had been a heavy drinker, and consequently the patient, both as child and adult, detested alcohol. Schlesinger assumes an inherited tendency to drinking, which in consequence of this hatred of alcohol, satisfied itself with coffee, and when this was unobtainable during the war and post-war period, with substitute drinks.—*M. E. Morse* (Hyattsville, Md.).

4844. **Schroeder, T.** "Divinity" in semen. *J. Nerv. & Ment. Dis.*, 1932, 76, 110-127.—An historical account of the theory of the semen as the repository for divine principle.—*C. R. Atwell* (Boston Psychopathic Hospital).

4845. **Searl, M. N.** A note on depersonalization. *Int. J. Psychoanal.*, 1932, 13, 329-347.—A review of the psychoanalytic literature on depersonalization is given. Case material is presented from the writer's own patients, one being a five year old boy. Searl concludes that in addition to what has already been contributed in the literature on this subject there must be added these facts: the child's feeling of being turned into an inanimate thing by the commanding, aggressive look of the parent; introjection into the ego of some substitute for the surrendered part of the personality; depersonalization acts as a defense against paranoid mechanisms; mild depersonalization alternates with "wild beast" identifications; sadistic identifications play a part in depersonalization.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4846. **Shellow, S. M.** *How to develop your personality.* New York: Harper, 1932. Pp. xvi + 308. \$3.00.—Although intended for use essentially as a text for laymen, this is usable as a college text. It is based upon recent psychological publications, and follows a logical outline. Chapters are as follows: What is personality? How is personality judged? Building up a personality. Habit formation. What happens inside the nervous system? Breaking a habit. Appearance. Verbal expression—how we talk. Intelligence—what is it? Memory. Intelligence—ability to learn. Intelligence—improving our methods of thought. Education and intelligence. Intelligence tests. Emotions. Inner drives. Interests as a guide to vocations. Social adaptation. Much illustrative material sustains interest in the text; and every chapter is followed by a short list of suggested readings. The implicit aim of the book is to help the (lay) reader to reconstruct his own personality (by gradual stages) as a result of insight gained from the study of personality in himself as well as in others. The point of view of the author is expressed in her own words as follows: "Personality is the expression of our inner selves, the way in which we show ourselves to the world. Sometimes the personality which others see is vastly different from the one we may think we express. Between the individual self and the impression which the outside world gets of that self lies the whole technique of self-expression. It is this technique which we shall study in detail, and attempt to make more effective."—*O. L. Harvey* (Boston).

4847. **Smith, M.** A preliminary report on judgments of personality traits from observational records. *J. Abn. & Soc. Psychol.*, 1932, 27, 35-39.—A record of the behavior of a boy of seven years as observed by three different persons was submitted to several selected groups. Sixty traits, each with four possible degrees, were listed on a category sheet which the judges checked after reading the record. The degrees, or values, accorded to each trait were correlated for each judge with the case as analyzed by the count of traits, the Pearson formula being used.—*C. H. Johnson* (Boston Psychopathic Hospital).

4848. **Thompson, V.** Toothache and masturbation. *Int. J. Psychoanal.*, 1932, 13, 374.—In support of the observations in analytic literature that ideas of toothache and masturbation often have an unconscious association, it is reported that British soldiers have a current slang phrase "Irish toothache" to mean having an erection.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4849. **Verhaeren, J.** Der Eintritt ins Berufsleben. (The entrance upon a vocational career.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 576-581.—Points out personality problems found in connection with adjusting young people to meet industrial requirements. The author finds that lack of self-confidence, inability to accept responsibility, awkwardness, etc., are in the nature of defense, revenge, and similar reactions. In most cases the individual can be helped quite easily to understand himself and to correct his attitudes. Home training situations lie back of all maladjustments. The need for competent vocational counselors in industry is stressed.—*O. N. de Weerd* (Beloit).

4850. **Wilbur, G. B.** Soul belief and psychology. *Psychoanal. Rev.*, 1932, 19, 319-326.—A review of some of Rank's views as presented in his recent publications. The relationship between the patient and analyst, the conflict between the "creative will" and guilt in any individual, the escape of fear of death by belief in immortal soul, etc., are discussed from the Rankian viewpoint.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

4851. **Wittels, F.** The Lilith neurosis. *Psychoanal. Rev.*, 1932, 19, 241-256.—The term Lilith neurosis is applied by Wittels to those cases in which men project the feminine or homosexual component of their personalities onto some woman—either a girl mutually adored by two men who thus express their homosexual attachment to each other, never approaching the girl herself, or a wife who is accused of unfaithfulness or is valued because she is unfaithful. In the latter case, the husband's homosexual desires are vicariously satisfied through the imagined or real love affairs of the wife. Cases are cited in which these projections are apparent.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

[See also abstracts 4744, 4750, 4755, 4772, 4915, 4920, 4953, 4984, 5016, 5027, 5073, 5084, 5087.]



## NERVOUS AND MENTAL DISORDERS

4852. [Anon.] Abstracts of theses, Smith College School for Social Work, 1931. *Smith Coll. Stud. Social Work*, 1932, 2, 358-379.—The first group of abstracts has for its subject "factors associated with success in the treatment of clinic patients." Thirteen of these theses were part of a joint research performed at the Institute for Child Guidance, New York; fifteen studies were made in other child guidance clinics; two studies of the same general subject were performed with hospital patients. The second group contains eleven studies of particular types of patients; the third, five studies in psychological mechanisms; and the fourth, five miscellaneous studies.—H. Lange (New Hampshire State Hospital).

4853. [Anon.] Deutscher Verein für Erziehung, Unterricht, und Pflege Geistesschwächer. (German Association for the Education, Instruction and Care of Mental Defectives.) *Zsch. f. psych. Hygiene*, 1932, 5, 30.—Economic management of institutions is necessary at this time in order to keep going and to prevent the cultural value of care for defectives from collapsing into the general chaos. Better utilization of the care-taking and school personnel must be combined with improvement in their instruction, so as to apply most advantageously the newest methods of care and education. Especially important is the communication of scientific observations made in all institutions, thus producing a synthesis of individual experiences. The titles of the papers presented are given.—M. E. Morse (Catonsville, Md.).

4854. Azboukier, D. J. [The defectology movement and higher defectology instruction in the U.S.S.R. and in other countries.] *Trudy II Univ. Moskva*, 1, 107-113.—The author uses the term defectology to cover the general study of all kinds of deficiencies. He gives a very brief examination of the organization and regulation of schools, hospitals, special classes, colonies, etc., for defective children in the different foreign countries, as well as a description of training schools for instructors for such institutions. The defectology movement in the U.S.S.R. started in general after the October revolution. Azboukier admits that the existing institutions are quite inadequate for the care of all the children who should be admitted, though a great number of defectology institutes are already in operation: 25 institutes for the blind, 50 for deaf-mutes, and 50 day schools and 80 boarding schools for feeble-minded children. In these institutions 1,500 instructors are employed. He expects the number of such institutions to be greatly increased in the near future. Specialized educators are being trained in the universities of Moscow and Leningrad, their subjects covering an extensive four-year course.—A. B. Hunter (Clark).

4855. Barinbaum, M. Zur "Inkontinenz" der weiblichen Harnblase. ("Incontinence" of the female urinary bladder.) *Zentbl. f. Psychotherap.*, 1932, 5, 9.—Barinbaum emphasizes the point that a purely organic incontinence should be assumed only when, with Freud's method, a psychogenic cause can

be excluded. Gynecologists are apt, in a routine way, to refer all cases not of traumatic or spinal origin to prolapse. The author reports a case in which the incontinence, connected with sexual situations, represented a regression from adult sexuality to an infantile sexual level—specifically, to urethral erotic sensations which the patient experienced in early childhood when her father swung her. Psychoanalysis relieved the symptoms, although the patient had an actual prolapse. This case proves that prolapse in itself does not necessarily cause incontinence. Cases of incontinence in women should be studied more critically to determine what percentage are psychogenic or both organic and psychogenic. As about 10% of all gynecological patients have symptoms of incontinence, a study of this large material would give important results.—M. E. Morse (Hyattsville, Md.).

4856. Barinbaum, M. Eine kurze Mitteilung über zwei psychotherapeutisch beeinflusste Ekzeme. (A short report on two cases of eczema influenced by psychotherapy.) *Zentbl. f. Psychotherap.*, 1932, 5, 106.—(1) A 20-year-old baker's apprentice, with eczema of the fingers which had not responded to medical treatment. Although the boy's ambition was to go to sea, the father insisted on his learning the baking business. Not being sufficiently independent to oppose the father openly, he expressed his feeling toward him by developing a lesion which incapacitated him for work. Subconsciously, he was thus the victor, without conscious aggression and the resultant anxiety and feeling of guilt. The author imparted this interpretation to the patient, and the eczema healed in a surprisingly short time. This meaning was of course only one of the determinants of the situation, but it sufficed for the therapy. (2) A man of 32 years, with eczema of the groin which had resisted the usual medication. It developed in the course of a sexual situation which had become disagreeable to the patient. A simple interpretation was given him. He decided to change his course of action, and the lesion disappeared. It represented a defense which eventually became unnecessary. In these cases, only a very slight amount of psychoanalytic procedure was used as a starting point and as an aid to medicinal treatment, in order to free the patients from an annoying symptom. Further analysis would not have been justified because the patients recognized no other psychoneurotic symptoms.—M. E. Morse (Catonsville, Md.).

4857. Becker, H. A practical mental health program, with especial reference to the mental hygiene of childhood and to the local community. *Psyche*, 1931, No. 46, 62-82.—While a mental health program has as its proximate goal freedom from mental illness, another greater aim is toward the development of the best possible type of personality. We have been considering the healthy mind from almost a negative view point, but mental hygiene looks toward a personal well-being in which the individual is not annoyed with unsatisfied tensions, does not exhibit objectionable social behavior, and maintains himself intellectually and emotionally in all situations which stay in

reasonable bounds as to intensity and frequency of crises. This is difficult to achieve if the social order is not conducive to mental health. The ultimate goal, then, of mental health programs is a social order in which mental and social harmony is possible to all human beings.—*T. R. Garth* (Denver).

4858. **Berger, H.** *Neue Wege für die Erforschung und Bekämpfung des Kurpfuschertums.* (New methods of investigating and fighting quackery.) *Zsch. f. psych. Hygiene*, 1932, 5, 3.—Up to the present time, the fight against quackery has achieved no positive success. In fact, the number of irregular practitioners has probably increased in all countries since the war. The psychology of quackery has never been studied scientifically, but it cannot be denied that a very large number of both the healers and their patients are mentally abnormal; also that many of the former are swindlers and criminals. Psychiatry could find in this field a wealth of material on mass suggestion and the influence of psychopaths on one another. Mental hygiene has the duty of taking up the psychological and psychiatric aspects of the problem of quackery. The lack of this help is one of the causes of the failure of previous efforts. The author urges cooperation between the German Society for Mental Hygiene and the Society for Combatting Quackery. The chief aim of the latter organization is the passage of a law restricting lay healing, and it has exposed the methods and manoeuvres of quacks, their strong organizations, and their often very clever and deceptive publications. Berger doubts, however, whether an essential decline in irregular practitioners could be brought about by legal measures, because the longing for some kind of irrational help, not only in regard to healing, but everything else, is deeply rooted in the human soul. How far the psychological foundations of the demand for quackery must be considered normal and how far pathological, and in the latter case, whether definite causes can be discovered and combatted—is from the medical standpoint the more important and interesting side of the problem. The fight against quackery must take account of both the psychologically normal and abnormal adherents. The latter are the particular concern of mental hygiene. In actual mental disease and complicated abnormal conditions, lay treatment may cause grave injury. This danger will be greatly increased by Freud's sanction—incomprehensible to the scientific mind—of lay analysts. The International Committee of Mental Hygiene could be made a very important agency in the fight against quackery. In 1930, the author advocated international cooperation in this problem, but received no encouragement. The movement must be broadened to include all mentally injurious influences, which are presumably the same in all countries and among all races. The fight against quackery is only one aspect of the problem of popular education in hygiene.—*M. E. Morse* (Catonsville, Md.).

4859. **Bernardi, R.** *Febbre e treponema.* (Fever and treponema.) *Rass. stud. psichiat.*, 1932, 21, No. 2.—Bernardi attempted to study the action of hyperthermia in general paralytics in the following manner.

He observed the behavior of certain serous cells of the rabbit which were in contact with liquids heated to 44°. These cells grew larger at first and then became smaller, as if they had lost a part of their cellular content. Bernardi thinks that one can explain along parallel lines the favorable action of high temperatures in paralytics; it is possible that at least a part of the treponemas are eliminated from the nerve cells.—*G. C. Ferrari* (Bologna).

4860. **Binswanger, H.** *Eine Psychose (paranoid) als Schicksalsablauf.* (A paranoid psychosis considered as a psychic fate.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1931, 133, 38.—An exhaustive account of the life history of a paranoid doctor of law, with special consideration of all the causal factors. The author's working hypothesis is that if any one of these conditions had been lacking, the psychosis would not have occurred. As a child spoiled by his mother, he had been enabled to expand his constitutionally strong demand for power. Later, he repressed this aggression through intensive cultivation of his intellect, and became a passive, accommodating worker in a bank. Since his intellectual life had developed only along abstract and theoretical lines, he failed to attain the business position for which he had striven most industriously. At 39 years, finding himself in a position in which his business and financial advancement was blocked and his relationships to persons, especially to women, markedly circumscribed, he fell increasingly into autistic absorption. Eventually, criminalistic impulses broke through, when he used the secrets of his firm as a foundation for his own business ventures. Feelings of heterosexual guilt, connected with his fantasies, appeared, as well as homosexual and criminal anxiety, obviously a murder impulse against the hospital superintendent. His life had now come to definite bankruptcy, and there remained only the choice between suicide and the delusional identification and confusion of persons and situations, which constituted the clinical picture of paranoia. The patient tried both; he no longer knew whether his murderous impulses were directed toward himself or whether other persons were planning to murder him. The content of the psychosis was made up of his previous experiences; in a mood of extreme anxiety his thoughts circled around the theme of death, and of being poisoned, drowned, or suffocated by delinquent youths. He represents the type of the inhibited individual and the hidden criminal, who has made his life-objectives too one-sided. He is finally confronted with the realization that his wishes cannot be fulfilled, and consequently in a catastrophic situation he seizes on criminal means as the last resort before the psychosis. His criminality is to be interpreted not so much as the expression of his psychosis as of his entire fate in life. It is assumed that if he had reached his business objective, or through happier circumstances had been able to marry, i.e., if his expansion in one of the important fields of life had been attained, the catastrophe would have been averted.—*M. E. Morse* (Catonsville, Md.).

4861. **Blake Pritchard, E. A.** *Cerebral tumor as a cause of generalized epileptic attacks of long stand-*

ing. *Lancet*, 1931, 221, 842-844.—The view has been advanced that mental symptoms cannot be considered to be caused by tumor when they have been present several years preceding a rise of intracranial pressure. The author presents a group of 5 case studies which indicate that this view would not be justified in case of epileptic convulsions. In these cases cerebral tumor had given rise to epilepsy many years before any other signs of cerebral lesion were present. The fits cannot, therefore, be regarded as resulting from a rise in intracranial pressure.—D. J. Ingle (Minnesota).

4862. **Bosshard, H. M.** Our attitude toward mental patients. *Occup. Therap. & Rehab.*, 1932, 11, 241-252.—Takes a cue from horse training; when the subject is found doing something worth while, of his own accord, keep him at it. It is important to obtain the patient's confidence before applying corrective measures. Calling him by his first name is useless unless we actually feel friendly toward him.—H. E. Burtt (Ohio State).

4863. **Bruce, L. C.** A record of an attack of mania. *Lancet*, 1932, 222, 83-84.—A case of acute mania was observed from the onset of the attack to recovery. A complete blood chart was obtained for the period of attack. There was a fall of the polymorphonuclear leucocytes at the period of acute delirium and a rise on recovery. The eosinophil leucocytes disappeared from the blood during the period of delirium and reappeared when improvement began. An organism was isolated from the blood of this patient. A vaccine prepared from culture growths produced a slightly positive skin attack. Patients having other types of mental disorder gave negative reactions to the vaccine.—D. J. Ingle (Minnesota).

4864. **Cabitto, L.** Sulla psicosi allucinatoria cronica. (Concerning chronic hallucinatory psychosis.) *Schizofrenie*, 1932, 1, No. 1.—Report on three cases of De Clerambault's syndrome, which, according to the author, might be included in the schizophrenia group. However, they are in a sense a group apart on account of the toxic factor and the tendency to improve.—G. C. Ferrari (Bologna).

4865. **Chambers, W. D., & Harrowes, W. McC.** A case of hysterical fugue. *Lancet*, 1932, 222, 22-23.—A description of a fugue in a male of middle age. There was a gradual recovery under treatment. Some of the medico-legal difficulties of such cases are illustrated and discussed.—D. J. Ingle (Minnesota).

4866. **Clark, L. P.** The psychology of idiocy. *Psychoanal. Rev.*, 1932, 19, 257-269.—The idiot remains in a stage of either primary or secondary narcissism with respect to emotional development. Two cases are cited in detail. The question is raised as to how much inability to learn on the part of the idiot is due to the amentia, and how much the narcissism, which prevents introjection of outer world objects and adaptations to reality, is a contributing factor.—P. Blanchard (Philadelphia Child Guidance Clinic).

4867. **Culpin, M.** Some cases of "traumatic neurasthenia." *Lancet*, 1931, 221, 233-237.—Legal judgments for compensation in cases of "traumatic neu-

rasthenia" are based on the belief that the injury has caused a physical condition of the nervous system having characteristic signs but lacking morbid anatomy. It should be recognized that the majority of these neuroses are dependent not on a physical disturbance caused by trauma but upon a number of psychological factors. In some cases, however, an anxiety state may follow a physical shock in the absence of the compensation factor. The author maintains that no case of either hysteria or traumatic neurasthenia has ever been accurately described throughout its development, for the reason that anyone capable of recognizing and describing it would not allow it to develop. Both neuroses are easily preventable. Twelve case studies are presented and discussed.—D. J. Ingle (Minnesota).

4868. **Davies, A. E.** Social implications of psychiatry. *Brit. J. Med. Psychol.*, 1932, 12, 15-40.—Three cases illustrate the more general discussion. Classifications necessary to bring the phenomena of the reported cases to a focus are: socio-económico-ethico-personal; socio-ethico-marito-sexual; socio-ethnológico-económico-financial. The end terms indicate the points at which the condition of the patients became acute.—E. R. Hilgard (Yale).

4869. **De Greeff, E.** La psychogénèse des délires. (The psychogenesis of delusions.) *J. de neur. et de psychiat.*, 1931, 31, 361-421; 441-471.—The author believes that current psychiatry has neglected the study of intellectual functions. It is not the absolute level of intelligence but what the author calls a "state of relative dementia" (*état de démence relative*) that is of central importance in many psychotic processes. In the state of relative dementia the individual loses the intellectual capacities which he once possessed. The formation of chronic delusional states is based on this progressive destruction of the higher intellectual faculties, and the type of the delusional systematization depends upon how quickly the intellectual disintegration takes place. This state of dementia is characterized by the inability of the patient to direct his intellectual activity toward creative processes requiring combination, synthesis and systematization; the regression of the intellect is towards an infantile type. At the same time there is an emotional alteration, a tendency to pass from a syntonio to a schizoid personality type. If the intellectual and emotional equilibrium becomes altered in a short period of time the vision of the outside world also changes, and as the patient is not aware of the alteration within himself, he believes that the outside world has changed. Consequently the delusion is an effort at adaptation to reality by an intelligence which is erroneous in its perceptions and judgments. The false conclusions, however, which a patient draws, closely resemble the reasoning and manifold false conclusions that are arrived at in every-day life by normal individuals. Even the delusions of persecution and grandeur we find represented in folklore and mythology. In discussing the pre-delusional stage the author states that this period may last up to 10 years. It is characterized by excessive rationalizing, interpreting, ruminating. The patient becomes egocentric and believes



himself misunderstood; abnormal jealousy and hypochondriasis may develop. The delusional idea is the result of intellectual reflection, while the hallucination takes place when the affects are allowed expression without having to pass the censoring action of reflective thought. The production of hallucinations takes place in conditions in which the normal processes of attention and inhibition are impaired. Hallucinations then seem to indicate a functional disorder which is superimposed on the developing dementia.—*H. Sze* (New York City).

4870. *Dosužková, V. Poznámky o neurasthenii.* (Remarks on neurasthenia.) *Rev. v. neur. a psychiat.*, 1931, 28, 465-475.—Among 100 neurasthenics at the Prague Nervenklínik, there were twice as many men as women. Among the men, the maximal number fell between 21 and 30; among the women, between 31 and 40. Among the former, the single predominated; among the latter, the married. Not one was divorced or widowed. All complained of great fatigability and irritability, decreased power to work, insomnia, and disturbance of memory. To these, a series of inconstant symptoms was added. Examination of the vegetative nervous system showed 42.7% vagotonic (positive oculo-cardiac and negative plantar reflex); 29.5% sympathotonic (relation of the reflexes reversed); 10% amphotonic (both reflexes positive); 6.6% atonic (both reflexes negative); and in 5.2% a variable formula. According to the course of the disease, the author distinguishes two forms of neurasthenia; one beginning at a later age, of short duration, and intermittent; the second developing at puberty, and running a chronic and remittent course. A hereditary factor could be demonstrated in 89%. The constitutional type was in 80% athletic and asthenic; in 16% pyknic; and in 4% dysplastic.—*M. E. Morse* (Catonsville, Md.).

4871. *East, W. N. Mental inefficiency and adolescent crime.* *Lancet*, 1931, 221, 166-169; 221-224.—The medico-legal problems involved in dealing with mental and moral defectives are discussed. The English statutory definitions of mental defectiveness were last revised in the Mental Deficiency Act of 1927.—*D. J. Ingle* (Minnesota).

4872. *Eliasberg, W. Ueber ätiologisch ungeklärte, zum Selbstmord führende Depressionen von charakteristischem Verlauf.* (Etiologically obscure depressions of characteristic course, leading to suicide.) *Arztl. sachv. Ztg.*, 1931, 37, 193-198.—Eliasberg contributes to the literature on a group of depressive states connected with a compensated injury. The common factor in these depressions, which occur at various ages, is that they develop after a trauma and end in suicide. The trauma, which is sometimes slight, is not necessarily the result of an accident, but may be a permanent injury, e.g., years of war service. It does not always strike the nervous system. Neither compensation nor environmental difficulties appear to play a part. The author's case was a 45-year-old man of asthenic type, but able to work previous to his illness. During his 2¾ years of military service, he often fainted on marches, but was never seriously disabled. In 1920 he was pensioned

because of an increase in "nervous weakness." At that time he appeared anxious and repressed. In 1921 he complained of general difficulty; in 1928, of inability to work. At this time he was brutal, irritable, and dangerous to himself and others. Physical examination showed nothing very striking: WR negative; arteries soft; BP 120; salivation; localized tremor; myosis; and very active tendon reflexes. In his fifty-fifth year he hanged himself. Eliasberg lays the responsibility for the outcome on the injury received in military service, and assumes that cerebral arteriosclerosis was the underlying factor. The fainting attacks were an early symptom of this, and the progress of the disease was hastened by the "consuming" influences of service at the front. The cerebral arteriosclerosis advanced, although with remissions, and with it a "peculiar hypochondriasis" developed "which one might find in any accident case."—*M. E. Morse* (Catonsville, Md.).

4873. *Eliasberg, W. Beobachtungen zur psychischem Hygiene und zur Psychotechnik im neuen Russland.* (Observations on mental hygiene and psychotechnics in the new Russia.) *Zsch. f. psych. Hygiene*, 1932, 5, 10.—In connection with the historical and scientific background of psychotechnics and the general concepts of mental hygiene, the author discusses the influence of collectivism on the mental hygiene of the Russian people, with special reference to the economic and industrial aspects. The Russians are trying with the greatest seriousness to extract from the total complex of mental hygiene whatever is immediately pertinent to collectivism. They entirely ignore individual differences, however, because they believe that under the social transformation such variations play no part. Socialized industry knows no predisposition to accidents—"a bourgeois invention" of capitalism. They have a special aversion to statistical methods, going so far as to deny the existence of mathematical constants, which are nothing more than postulates of "metaphysical idealism." This is an example of the materialism which permeates every branch of Russian science. The practical consequences of collectivism, with its slight interest in the individual, are of the greatest importance for the future of mental hygiene since, according to our concept, mental hygiene centers in the individual. In Russia, the claims of the individual and all forms of individual life are denied. Any kind of differentiation or getting-away, even in an esthetic sense, is absolutely impossible. The consequence is continuous close physical contact under bad hygienic conditions. The mood of both normal and sick persons has changed. In all groups depression has been replaced by a tense elevated mood, which has reached a pathological degree and is maintained by intensive, carefully planned mass-influences. In evaluating the results of this social experiment, however, one must remember that the Russians are inclined toward a collective form of thought and life by tradition, and perhaps also by biological peculiarities. Satisfaction of individual tendencies is not the foundation of happiness for Russians. Collectivist tendencies are attested by their history, art,

philosophy, even by the large part played by impersonal constructions in their language. In thought and speech, "fate," in the sense of the collective will, rules. The fundamental social experiences are nevertheless, only apparently repressed by the new order. The individual is still concerned in industry as an individual and competes with his associates. The collectivist solution of the problem of precedence is to divide responsibility minutely. Each person then builds his self-esteem on the feeling that his will is supreme in regard to a certain little function. The spirit and rewards of competitive sport have been transferred to industry. Hygiene also has a collective trend. Physicians have no incentive to individual excellence. They do not, generally speaking, practise a free profession, but are merely medical officials. The Russian attitude toward natural selection is an optimistic fatalism. In popular hygiene they stress environment, especially the social factors, and deny biological limitations. They collectivize environment, and social environment in particular, to the limit, while they neglect all kinds of individual hygienic need, especially individualized psychotherapy. If the individual type is reconstructed with psychological insight, and approximations to it are actually frequent, the outlook for the greatest good to the greatest number is better in Russia than elsewhere. In regard to mental hygiene, the value of the Russian experiment is that it demonstrates the importance of sociopsychological factors. The future will show whether these are as fundamental as the Russians believe.—*M. E. Morse* (Catonsville, Md.).

4874. Fairbairn, J. S. The medical and psychological aspects of gynaecology. *Lancet*, 1931, 221, 994-1004.—Disorders such as dysmenorrhoea, menorrhagia, amenorrhoea, dyspareunia, and vaginismus can result from psychological factors as well as from diseases of the reproductive tract. Vomiting of pregnancy may be evidence of hysteria, and probably arises from the suggestion to vomit. The development of the mental state favorable to natural delivery reduces not only mental and physical suffering, but maternal mortality as well. Disorders arising after childbirth may result from personal factors as well as physical.—*D. J. Ingle* (Minnesota).

4875. Fankhauser, E. Gefühl, Affekt und Stimmung; manisch-depressives Irresinn; Paranoia. (Emotion, affect and mood; music-depressive insanity; paranoia.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1931, 132, 321.—Fankhauser continues here his studies on affectivity, particularly the last, *Affectivity as a Factor in the Psychic Life* (1926). He classifies the affects as: mood-affects and presentation- or idea-affects, according to whether a mood or a presentation (*Vorstellung*) predominates. Moods are distinguished as allotropic and egotropic. Presentation-affects are divided according to whether they relate to an expected presentation or to one which has already become an experience. These are separated further into the allogenic and egogenic, and there is a series of subordinate groups. In connection with the moods, special emphasis is laid on the difference

between allotropic gaiety and egotropic loftiness. While gaiety is connected only with positive affects (self-confidence, security, approbation, etc.), elevation may exist also with negative affects (discontent, disgust, etc.), even of the allogenic type. Similarly, a depressed mood is often connected with a positive presentation-affect. This is important for mania and melancholia, and explains, for example, the discontented, querulous, elevated mood at the height of the mania. Paranoia develops out of suspicion, a negative feeling of expectation, which gives the impression that something injurious has happened but has not been discovered. On the other hand, incapability and lack of energy are not characteristic of paranoia. All that is necessary is an aggressive stable affect on the foundations of a "process psychosis." A delusion then appears in the field of the presentation-affect. Paranoia should therefore be included in the group of the affective psychoses, along with mania and melancholia. The last two, however, originate in pathological changes in the mood-affect; paranoia, in the presentation affect. The author supposes that all these psychoses are connected with hypothetical deviations from normal in the brain tissue.—*M. E. Morse* (Catonsville, Md.).

4876. Feuchtwanger, E. Amusie. (Musical aphasia.) *Fortsch. d. Neur., Psychiat. u. Grenzgeb.*, 1932, 4, 289-305.—A discussion of the various forms of musical aphasia; symptoms, functional analysis, cerebral localization.—*E. R. Hügard* (Yale).

4877. Frus, J. O dvou případech neurasthenie, a co nám chybí. (Two cases of neurasthenia, and what we lack.) *Rev. v neur. a psychiat.*, 1931, 28, 227-232.—Reports of two neurasthenic patients who voluntarily sought a mental hospital in the hope of cure. The first was a 14-year-old girl with a psychogenic depression. The second was a man of artistic endowment, whose talent could not develop because of material cares. Consequently the hospital recommended itself to him as a place of refuge. On the whole, mental hospitals are not adapted to the care of neurotics. Even the addition of open wards to a closed institution would not be a satisfactory solution, as the neurotics' fear of becoming insane would be increased, and the committed patients would demand the same privileges as the voluntary cases. The best solution would be the establishment of a tax-supported sanatorium for neurotics—a plan for which Haškovek has always worked with the greatest energy.—*M. E. Morse* (Catonsville, Md.).

4878. Grünthal, E. Über Ähnlichkeiten zwischen organischer und schizophrener Denkstörung. (On the similarities between organic and schizophrenia thought disturbances.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1931, 135, 618-628.—It happens that from comparative analyses of an organic and a schizophrenic thought disturbance, in which, in the schizophrenic case, an episode was present which called forth a purely organic impression, an "organic radical" can be worked out for both thought disturbances. It can also be embedded in schizophrenia and is closely akin to the attribute which as "the defective span of the intentional arc" has been brought into

prominence by Beringer as being peculiar to schizophrenia.—*S. Krauss* (Frankfort a.M.).

4879. **Grünthal, E.** *Die erworbenen Verblödungen.* II. (The acquired dementias. II.) *Fortsch. d. Neur., Psychiat. u. Grenzgeb.*, 1932, 4, 306-320.—A review of recent literature on Pick's disease, Alzheimer's disease, spastic pseudosclerosis, amaurotic idiocy, and senile dementia. Extensive bibliography.—*E. R. Hilgard* (Yale).

4880. **Harris, W., & Cairns, H.** *Diagnosis and treatment of pineal tumors.* *Lancet*, 1932, 22, 3-9.—Tumors of the pineal body rarely occur. Records of only 113 cases have been collected. Since the pineal lies immediately above the quadrigeminal plate and the aqueduct of Sylvius, tumors of the gland produce symptoms of obstructive hydrocephalus and of pressure on the superior corpora quadrigemina. There is persistent headache, giddiness, limitation of the upward movement of the eyes, and loss of pupillary reaction to light. If pressure on the inferior corpora quadrigemina occurs, disorders of hearing may result. The development of pineal tumor in dogs sometimes gives rise to sexual precocity. The authors describe in detail a case of pineal tumor which was successfully treated by them.—*D. J. Ingle* (Minnesota).

4881. **Hartfall, S. J.** *Psychosis in osteitis deformans.* *Lancet*, 1931, 221, 68-69.—In cases of osteitis deformans the skull bones are frequently involved. Extensive alterations are produced in the shape of the head and in the capacity and shape of the vault. Generally there is an increase in the breadth of the interior of the skull, while its anteroposterior diameter is lengthened. The depth of the skull cavity is diminished and its base becomes flattened and sometimes convex. In spite of such deformation marked mental symptoms and symptoms due to cranial nerve involvement are of infrequent occurrence. The writer has investigated 18 cases of this disease who had been patients at the Leeds General Infirmary and found that none showed evidence of psychosis and only one manifest neurological signs suggesting compression of a cranial nerve. The writer reports a case of his experience who was suffering from osteitis deformans and who, at the same time, was emotionally depressed and subject to delusions. Other cases have been reported.—*D. J. Ingle* (Minnesota).

4882. **Herzberg, A.** *Leistungstherapie bei Neurosen.* (Therapy of neuroses through attainment.) *Zentbl. f. Psychotherap.*, 1932, 5, 81.—The author discusses the conditions which keep up a neurosis, and explains the nature and technique of attainment therapy and its differences from other forms of psychotherapy. The factors which maintain a neurosis may be divided into the pathogenic and the pathoplastic. The former include pathological needs and predispositions; the latter give and fix the form. Pathogenetic needs are of many kinds—sex, aggressive tendencies, etc. Only unattainable or unsatisfied needs of sufficient intensity can keep up a neurosis, which is not a fixed, self-perpetuating formation, but a living phenomenon, continually

produced anew. Predispositions are permanent conditions, originating in the germ plasm or the environment, which increase the pathogenetic needs by intensifying their influence on physical or mental processes, e.g., supernormal intensity of the instincts; abnormally strong effect of emotions on physical or mental processes, and the consequent tendency to split states; over-sensitiveness to unpleasant impressions, with the resultant fear of exertion and failure, and the related tendency to instinctual fixation. Formative factors are physical or mental dispositions which determine the character of the symptoms, e.g., over-irritability of the vegetative nervous system or the eidetic or depressive type. Fixating factors are satisfactions of needs by neurotic symptoms. If we take away the pathogenic needs by satisfying them or reducing their intensity, or by the solution of fixations, the neurosis will be cured, if new pathogenetic needs do not arise. If we remove the functions of a symptom, it will disappear. There is one psychotherapeutic agent with which we can attack the various holds of a neurosis, viz., attainment therapy, which consists in tasks, planned activity, or deliberately created situations. These are devised to decrease, put aside, or satisfy the needs, or to remove hindrances. They are suited to the patient's personality and graduated according to his strength. The needs are discovered especially with the help of free association and the interpretation of symbols and dreams. The patient must have sufficient insight to be convinced of the desirability of the attainment. The tasks are given not in the form of a command or prescription, but as a stimulus. Resistance is overcome partly by the patient's growing insight produced by the study of his dreams, partly by argument, and partly through other appropriate tasks. The advantages of attainment therapy are its brevity as compared with psychoanalysis, the usual duration being 20-40 sessions. The causes of this quick action are: first, the marked stimulating effect of productive activity, which eliminates the long period of resistance responsible for the length of psychoanalysis. Second, the practical demands prevent the patient from withdrawing from all activity and "making himself comfortable in the analysis." His independence is stimulated from the beginning, thus preventing excessive transference, which interferes painfully with the analysis and is so difficult to break off. At the conclusion, this treatment brings, in addition to the peaceful and encouraging effect of any form of psychotherapy, a peculiar benefit in the satisfaction or removal of pathological needs, produced especially by enrichment of experience and strengthening of self-confidence. Attainment therapy differs from psychoanalytic treatment in that the latter demands not external activity but production of associations and persistence until all internal resistance is overcome. In contrast to this uniform subjective work, the principle of attainment therapy is objective differentiated activity. Ferenczi has made a beginning in this direction (in the suppression of bladder and bowel evacuation, etc.), but his purpose is to mobilize repressed material, not to remove the conditions



keeping up the neurosis. Attainment therapy plays a greater part in Kronfeld's "psychagogy," but it is introduced at a later stage and occupies a less central position. In general, differentiated attainment is used in the various types of psychotherapy far less extensively than its powerful curative effect warrants. Herzberg analyzes a number of cases to illustrate the various applications of the treatment.—*M. E. Morse* (Catonsville, Md.).

4883. **Hoffman, H. F.** *Neurosen und psychopathische Persönlichkeiten.* (Neuroses and psychopathic personalities.) *Fortsch. d. Neur., Psychiat. u. Grenzgeb.*, 1932, 4, 321-335.—A review of selected literature of 1931, with extensive bibliography.—*E. R. Hilgard* (Yale).

4884. **Inmate—Ward 8.** *Behind the door of delusion.* New York: Macmillan, 1932. Pp. xvi+325. \$2.00.—The author of this book is a newspaper man, voluntarily committed to a state hospital for the insane in the hope of curing dipsomania. His story contains his impressions of his fellow inmates, individually and collectively; of attendants and physicians; and of his own reactions. Most of the book is devoted to graphic pictures of individuals and of behavior situations. The pictures are restrained; there is nothing of the "madhouse." The point is emphasized that there is no sharp distinction between sanity and insanity, and that those "inside" differ but little from those "still outside." "In the minds of every one of the insane persons with whom I have come in contact there is one emotion which overshadows and outweighs all other activities of their minds. It is fear; . . . unreasoning fear, often vague and formless but hopelessly controlling and impelling." The patients are not treated with brutality, and are restrained only as necessary for their own protection. The greatest suffering arises in the constant contacts of shattered nerves and unbalanced minds. "The world has not reached the stage where peace of mind or freedom from nerve-wrecking contacts is considered as having a place in the treatment or alleviation of insanity."—*M. P. Montgomery* (Faribault, Minn.).

4885. **Jacobi, E.** *Die Psychoneurosen im Klimakterium, und in der Involution, einschliesslich des Klimakterium virile.* (The psychoneuroses of the climacteric and of involution, including the male climacteric.) *Zentbl. f. Psychotherap.*, 1932, 5, 32.—In contrast with the extensive literature on the climacteric and involutional psychoses, little has been written on the psychoneuroses of this period, perhaps because of their confused symptomatology, their similarity to processes at other ages, and the hazy borders of the general field. As there has been no review in recent years of the psychogenic disorders of later life, Jacobi gives a critical discussion of the German literature on the subject since the war. The distinction between the climacteric and involution is difficult. According to Bleuler, with whom Jacobi agrees, the climacteric is "a transition to another stage of life," while the senium is "a dying-out." The climacteric in women is in no way comparable to the senium in either sex. The tendency in the past has been to

charge every pathological manifestation at this period to the climacteric or involution, without proof or without even determining the type of reaction. The extreme view on the opposite side is represented by Stelzner, who declares that the menopause as an etiological factor in disease is a "fairy tale," and that the symptoms are due to an "expectation neurosis." In the highly differentiated woman, the psychic climacteric sets in much later than the physical, and rises more slowly. Every woman in the climacteric is in a special psychic situation. Through endocrine changes and disturbances in the vasomotor and vegetative systems, an anxiety mechanism and hypochondriasis arise in a sensitive type of personality confronted with a difficult life-situation. The psychoneuroses of this period are apparently not a clear-cut entity, but a complex which may be found also at other ages. Their symptomatology has been worked out as yet only along general lines. All the syndromes are characterized by depression, hypochondriasis, increased irritability and sensitiveness, and introspection. The psychoanalysts, who have done the most work on these disorders, believe that, in the face of a threatening situation, the libido regresses to the childhood or pubertal level. There is a strong internal conflict with over-compensation. The connection of the menopause with invalidism is attracting attention from various angles, whereas in earlier years there was no literature on the subject. Benefits are usually refused when psychogenic symptoms predominate. The prognosis of climacteric psychoneuroses is usually favorable. Light psychotherapy often helps quickly. A psychological prophylaxis in earlier years might ward off the development of anxiety symptoms. The question as to the existence of a male climacteric is still undecided. Although the changes were first described early in the nineteenth century, and Freud noted anxiety neuroses with the decline of potency, yet the concept, the exact symptomatology, prognosis, and differential diagnosis were first worked out by K. Mendel in 1910. The literature on the subject is now extensive. Hoche, the author who has treated the subject most thoroughly in recent years, is one of the few modernists to take the negative side. He believes that the differences from the climacteric in women are greater than the similarities, and that the symptoms ascribed to it are in reality signs of aging. Testicular function does not stop at a definite period. Men who show symptoms at this age have been neurotic previously. Kraus has recently treated this problem under the title: "The man of 50 years, a disease of civilization." The patients, who are mostly from the upper classes, have worked intensely and have feelings of inferiority, for which they over-compensate. From his own observations, Jacobi agrees essentially with Hoche. The psychoneuroses form an important group of these disturbances in men, but their connection with the reproductive glands is much less pronounced than in women. The symptoms may be a reaction to the aging process or to a particular life-situation. A special type of personality may or may not be present. The whole problem of the male climacteric is still fluid. New viewpoints and explana-

tions are to be expected from the somatic side, where much is still obscure. Jacobi's conclusion from his review of the literature on the climacteric in both sexes is that, although many articles have appeared, no essential advance has been made. Comprehensive works, systematic discussions, and critical reviews are still lacking, but the various smaller articles have illuminated many debated points in an interesting way.—*M. E. Morse* (Catonsville, Md.).

4886. Janota, O. *Pseudologia phantastica und manisch-depressives Irresein*. (Pathological lying and manic-depressive insanity.) *Praktický lékař*, 1931, No. 4, 104.—A 43-year-old patient, of marked pyknic type, had lied in a compulsive way for the past 3 years. In his youth he had indulged in fantastic tales, and at 21 and 27 years he had had depressions. Further examination showed a mild manic state, which was almost concealed by the pseudologia. The latter is considered not merely as a symptom of the manic condition, but rather as the hitherto latent disposition to lying which is brought out by the manic state. This case shows the combination of a manic-depressive process with a psychopathy of hereditary origin (an uncle was an eccentric swindler).—*M. E. Morse* (Catonsville, Md.).

4887. Jelliffe, S. E. *Psychopathology of forced movements in oculogyric crises*. New York, Washington: Nervous & Mental Diseases Publ. Co., 1932. Pp. 219. \$4.00.—This publication is a monograph of eight chapters dealing with the psychopathology of forced movements and the oculogyric crises of lethargic encephalitis. In the first chapter an historical account is presented. In the second chapter a detailed digest is made of a total of over two hundred case records by more than one hundred authors, with particular reference to information dealing with associated affective states. In the third chapter the author cites four cases he studied in detail, with a citation of the psychic concomitance of the oculogyric movements. In the next four chapters, which deal with the symptomatology as expressed by eye movements, thought development, anxiety, and hypervigilance, he discusses types, frequency and associated affects of eye movements; suggests and elaborates the idea that changes in thought processes are attributable to affective states rather than somatic changes; lists the various affective states accompanying oculogyric crises, suggests that the affective disorder is the probable nucleus of the impulsive state, and attempts to trace the physiological basis of hypervigilance. The last chapter deals with the psychopathology of the disease, with an elaboration of the affective states, forced movements and psychic significance. He suggests that oculogyric crises and similar forced movements are allied to ties and conversion symptoms. He elaborates given affective states psychoanalytically, focussing attention on the thought processes, states of consciousness, and affective states accompanying the crises and forced movements. An extensive bibliography.—*M. H. Erickson* (Worcester State Hospital).

4888. Kisselow, M. W. *Der Körperbau und die besonderen Arten des Schizophrenieverlaufes*. (Physical types as related to characteristic variations

in the course of schizophrenia.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1931, 132, 18.—If the course of the various clinical forms of schizophrenia is studied in connection with the presence of pyknic traits and other peculiarities of the somatic constitution, it is found that the structure of every case is exceedingly complicated and varied. Not only is the course of schizophrenia influenced by cycloid components and pyknic features, but every psychosis reflects the total structure of the personality and each of its constitutional factors. The psychosis has a peculiar symptomatology and course corresponding to each physical type. We are thus justified in speaking of a "muscular," "asthenic," "pyknic," and "average" schizophrenia, and of mixed forms. The bodily structure gives the best characterization and proof of the total structure of the personality. The author used as material for this study 46 schizophrenics observed in the psychiatric clinic at Kazan between 1925 and 1929, on whom somatometric data were available. For determination of the physical type, Andreyev's somatometric profile (*Zsch. Neur.*, 102) was used. This classification showed: muscular type, 8; asthenic, 14; pyknic, 8; average, 10; atypical, 6. The muscular type was associated with violent psychomotor excitement, rage, aggressiveness, visual hallucinations with clouded consciousness, attacks of dizziness, and various conclusive mechanisms, from slight contraction of the fingers to well-defined general epileptic seizures. Epileptoid traits were very frequent and occasionally gave rise to the suspicion of true epilepsy. The asthenic group was characterized by a gradual onset without secondary symptoms, a torpid course, slowly increasing apathy, a few vague ideas of external influence, fragmentary delusions of persecution, and mild auditory hallucinations. This is the commonest form of the disease, and is best characterized as "schizophrenia simplex." The pyknic schizophrenics showed cycloid peculiarities in the periodically remittent course of the psychosis, the swings of mood between gaiety and depression, the vivid affects, syntonía, and ability to make contacts. The middle forms showed a complicated picture of various components, although apparently not constituting an independent type. When the motor inferiority characteristic of their families became evident, they developed the catatonic form of schizophrenia. In the group of atypical bodily structure, the psychosis did not clearly bring out the above-mentioned characteristics.—*M. E. Morse* (Catonsville, Md.).

4889. Křivý, M. *Prispěvek k otázce pedofilie*. (Contribution to the problem of pedophilia.) *Rev. v. neur. a psychiat.*, 1931, 28, 276-316.—Three case reports: (1) A 25-year-old single imbecile used children only because he was unacceptable to adults. This case might be considered one of pseudo-pedophilia. (2) A married school administrator of 56 years, with a complicated perversion, which in addition to a predominant homosexual but occasionally also heterosexual pedophilia, expressed itself also in narcissistic and exhibitionistic traits. Among the photographs which he collected with passionate zeal were those of

children with bobbed hair, which he himself had cut off. Křivý regards this act as metatropism transferred to the pedophilic field. Physically, the patient was of pyknic build; in temperament, he was of the depressed and sensitive type. (3) A 27-year-old married teacher, with a strongly developed inner religious life; heterosexual pedophilia. At first he was an excessive masturbator; later, exhibitionistic tendencies developed, and eventually, pedophilia. The first case was considered fully responsible; the last two, partially so. In the genesis of these perversities, an inherited disposition plays a considerable part, as is shown in the great number of psychopathic and intersexual traits in the ascendants. In addition, these patients are usually psychosexually infantile. Instinctual weakness and masturbation scarcely come into consideration as causes; accidental sexual experiences around puberty are only pathoplastic, not pathogenetic factors. The importance of partial instincts and the incest complex, emphasized by the psychoanalysts, is recognized, but the objection is raised that this hypothesis leaves out of consideration the hereditary and constitutional factors. Of the greatest importance in pedophilia is the feeling of uncertainty in regard to themselves which torments these patients. The question of what to do with these individuals is very difficult. They should not be allowed complete freedom, but they do not belong in mental hospitals. Wherever they go, they have the opportunity to seduce unprotected or weak persons. As the best solution both for patient and society, Křivý recommends castration, with later implantation of a healthy testicle. Since, according to his view, pedophilia is not rooted in the constitution but is acquired, he believes in the possibility of prophylaxis through reform in sex education. It is necessary to guide adolescents in a friendly way and to call their attention to the dangers threatening them, rather than to hide them. In addition, every person who deviates in any respect from sexual normality should be restrained from a vocation which brings him into contact with children. Legal protection of young people should be extended from the thirteenth to the twenty-fourth year, and energetic measures should be taken against the propaganda carried on so zealously by the homosexuals.—*M. E. Morse* (Catonsville, Md.).

4890. Leroy, A. *Obnubilation intellectuelle complète retardée et prolongée, suite de commotion. Fugue pathologique.* (Complete retarded and prolonged intellectual insensibility following concussion. Pathological fugue.) *J. de neur. et de psychiat.*, 1931, 31, 594-601.—On the basis of two case histories the author discusses mental disorders which may follow cerebral concussion. He mentions Barbé who distinguishes first those disorders which appear immediately, and which generally consist in simple mental confusion, hallucinations and intellectual torpor; secondly the delayed disorders which appear about a month or two after the concussion and which show amnesia, torpor and hallucinations; and thirdly the late conditions (one or two years after the concussion) which develop into a chronic state of mental im-

pairment and dementia. Many cases of concussion recover rapidly, some pass through various stages ending in dementia, and some rare cases immediately begin with dementia. The question of what may condition the dulling of intelligence has not been solved. The opinion of some writers that it is due to a vasomotor paralysis of the cerebral vessels is questioned by the author.—*H. Sys* (New York City).

4891. Ley, A. *Migraine et hypothyroïdie.* (Migraine and hypothyroidism.) *J. de neur. et de psychiat.*, 1931, 31, 494-496.—The author presents the case history of a female patient of 27, who suffered from migraine-like attacks which were unusual in that they lasted up to one month. Another physician ascribed a psychic origin to them, the first attack having occurred after an early homosexual experience. The author, however, made the diagnosis of hypothyroidism, which was borne out by the fact that thyroid therapy was of immediate and lasting effect.—*H. Sys* (New York City).

4892. Lundholm, H. *The riddle of functional amnesia.* *J. Abn. & Soc. Psychol.*, 1932, 26, 355-366.—In functional amnesia, there is an inhibition by a subconscious mechanism, which attacks, not directly the function of thinking again the past experience, but the specific striving which was at work relative to the experience on its occurrence. Such inhibition modifies the meaning of the experience, so as to make it appear strange, foreign, and without feeling of personal reference. The subject suffering from amnesia is able to think the event; if it is related to him, he grasps cognitively the story told, but this story is not experienced as something that has happened to him in the past or as a personal experience of his own. If the story of the event is told to him he will not spontaneously and voluntarily think of it, for the reason that there is no incentive for so doing, the event, by the inhibition referred to, having become indifferent to him.—*C. H. Johnson* (Boston Psychopathic Hospital).

4893. Massaut, C. *Psychose syphilitique et paralysie générale.* (Syphilitic psychosis and general paralysis.) *J. de neur. et de psychiat.*, 1931, 31, 575-580.—In view of the frequency of a positive Wasserman reaction in different mental disorders the question arises whether syphilis acts as a specific causative agent or whether it has merely the influence of a generally debilitating or toxic-infectious factor. Some of the literature on the subject is reviewed and the history of a paranoid patient is presented in whom, according to the author, there was a definite influence of the syphilis on the mental disorder. A bibliography of 15 titles is given.—*H. Sys* (New York City).

4894. Mathien, —. *Un cas d'hémiplégie gauche avec troubles aphasiques et psychiques.* (A case of left hemiplegia with aphasia and psychic disorders.) *J. de neur. et de psychiat.*, 1931, 31, 608-612.—The case history of a left-handed woman suffering from a mitral stenosis, who at the age of 25 had a sudden attack with subcoma, left hemiplegia and aphasia disturbance. The aphasia disappeared rapidly, while the hemiplegia persisted. Three years later another attack occurred, followed again by aphasia and by a



state of marked excitement lasting for two days. The speech remained difficult and there was an intellectual impairment which became progressively worse. The patient showed also an emotional disorder with periods of irritability and of agitated confusion. The author ascribes the condition to two cerebral embolisms in the right cortico-capsular region.—*H. Sze* (New York City).

4895. McCowan, P. K., & Quastel, J. H. Blood-sugar studies in abnormal mental states. *Lancet*, 1931, 221, 731-736.—The sugar-tolerance curves of 85 psychotic subjects were studied. The findings were expressed in terms of a hyperglycemic index representing a quantitative measure of the departure of a sugar-tolerance curve from normal. In the manic-depressive group a close relationship was found between the amount of blood-sugar and the emotional tension of the patient. Those of the melancholia group who failed to show a raised blood-sugar level proved to have an hysteriform element in their psychosis. It is significant that patients manifesting hysteria have usually a normal blood-sugar level. In cases of mania the sugar tolerance was low except when the excitement was accompanied by an aggressive, paranoid mood. Cases of benign stupor show a low index, as do cases of arterio-sclerosis. In the schizophrenic group the index is low except when the psychosis is associated with toxemia, endocrine imbalance, or other physical disorder. Using the psychogalvanic reflex as a measure of degree of emotional tension, it was found that a close relationship exists between this measure and the hyperglycemic index. During menstruation the sugar-tolerance level becomes abnormal in both normal and psychotic cases. Failure to take the factor of menstruation or of abnormal physical conditions into account when studying the blood-sugar level of psychotics has led other investigators to erroneous conclusions.—*D. J. Ingle* (Minnesota).

4896. Meerloo, A. M. Die psychische Hygiene in Holland. (Mental hygiene in Holland.) *Zsch. f. psych. Hygiene*, 1932, 5, 25.—Short reports on some of the papers read at the 1931 winter meeting of the Dutch Society for Mental Hygiene. The following are mentioned: Herwerden, *The Meaning of Eugenics for Mental Hygiene*; Kohnstamm, *The Responsibility of the School for Mental Hygiene*; in Holland, the educational situation is complicated by the fact that each religious sect has its own schools, subsidized by the government; Van der Scheer, *The Psychiatric Institution and Mental Hygiene*; there are advocated occupational therapy, after-care, the breaking down of hospital isolation, and utilization of the institutions for teaching purposes; Rümke, *Mental Hygiene in Private Psychiatric Practice*; the mental hygiene movement in Holland is still in the stage of orientation.—*M. E. Morse* (Catonsville, Md.).

4897. Merzbach, T. Eine Zwangsbewegung. (A compulsive movement.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 588-589.—A boy thirteen and one-half years old reached to his ankles or feet whenever faced by elders. Analysis showed that this was a compulsive movement which served to direct attention away from

his head. Several years before he had lost some patches of hair through X-ray treatment for a skin eruption. These bald spots had become a source of keen embarrassment to him. The teacher's suspicion of sex practices proved unfounded. In the week following his first consultation with the counselor in a behavior clinic the boy gained control over the compulsion.—*O. N. de Weerdt* (Beloit).

4898. Mondio, E. Epilessia ed iperpnea ed epilessia riflessa nell'uomo. (Epilepsy due to hyperpnea and reflex epilepsy in man.) *Riv. pat. nerv. e ment.*, 1932, 39, No. 1.—The author, after studying the forms of epilepsy provoked by excessive respiration (hyperpnea) and the phenomena provoked by the stimulation of zones corresponding to the zone in which the convulsive attack began, draws the conclusion that attacks due to hyperpnea may be of the same kind as reflex epilepsy.—*G. C. Ferrari* (Bologna).

4899. Mysliveček, Z. Prspěvek k verbálně akustickým halucinacím. (Contribution to verbal-auditory hallucinations.) *Rev. v. neur. a psychiat.*, 1931, 28, 317-331.—Two individuals of 31 and 45 years, intelligent and otherwise normal mentally, have been hearing for a considerable time voices of such distinctness that only through experience and consideration of the accompanying circumstances can the subjects distinguish them from real voices. The hallucinations appear most commonly during a monotonous noise, and disappear immediately when the attention is concentrated. They correspond in content and affect to the personality (the first patient hears insults and threats in regard to his too liberal activity as a teacher). These phenomena were uninfluenced by drugs. The second patient had in addition the ability to form eidetic visual images voluntarily with closed eyes. These images, however, have no connection with the verbal pseudo-hallucinations, since the former increased during a fever, while the latter decreased. The patients did not believe in the reality of the voices and were fully conscious of their abnormal origin. This fact stamps the phenomena as verbal pseudo-hallucinations in Kandinsky's sense. The two cases give the rare opportunity to study hallucination as an isolated symptom, and they prove that genuine hallucination involves not only sensory irritability, but in addition the false judgment of reality which comes only from a pathologically changed personality. The active component, which depends on the personality of the patient, also plays a rôle in the newer theory of perception, and in the study of hallucination it, as well as the sensory side, must be taken into account.—*M. E. Morse* (Catonsville, Md.).

4900. Nitsche, —. IV. Aerztenkonferenz über Voraussetzungen und Gestaltung der Kinderfürsorge für seelisch und geistig abnorme Kinder. (Physicians' conference on the principles and forms of care for psychopathic and mentally defective children.) *Zsch. f. psych. Hygiene*, 1932, 5, 28.—A report on the fourth conference of this kind, which formed one section of the annual meeting of the German Association for the Protection of Infants and Young Children, held at Dresden in September, 1931. The discussion centered around three topics: (1) The

need of care for these children. Physicians know too little of the legal provisions which have been made for these groups. Only the specially trained physician is competent for the difficult task of recognizing and differentiating abnormal children, and yet treatment must begin with medical examination and diagnosis. There is urgent need to spread knowledge concerning psychically abnormal children among doctors, medical students, and organizations for the care of children. (2) *Clinical study and possibilities of prophylaxis.* (a). Interpretation of endogenous factors, in connection with which is urged examination by biological methods with the help of a simple uniform schema. (b). Exogenous factors (environment and education), with special reference to the psychopathic child. Although endogenous factors are undoubtedly of the greater importance, yet from the standpoint of practical care, injurious environmental influences take the first place. The first great period of differentiation of these children from their associates occurs in the second or third year. Plans for treatment should be based on the symptomatology at this time. Child welfare conferences are pre-eminently the place for these efforts; also day nurseries and kindergartens. Gradually, "open" care must be supplemented by the institution. (3) *Legal supervision and certification.* The central points for these activities are institutions for small children and the medical organization of schools. The children must be put under supervision as early as possible. The first warnings of abnormality may appear in infancy. Pediatricians, health workers, teachers, and kindergartners still lack the necessary instruction in the normal and abnormal psychology of the child. We should work toward a union of pediatrics, child psychology, and child care into a single field of "pedology" or child science. Necessary also is the teaching of mothers in schools and continuation schools. Mentally sick and psychopathic children should remain in an institution for a long period or permanently. A sharp differentiation of these two groups is desirable, although not always practicable. The conference recommends the establishment of a commission to advise in regard to supervision, treatment, and certification of mentally abnormal children, in accordance with their financial circumstances.—*M. E. Morse* (Catonsville, Md.).

4901. *Oliver, J. R. Pastoral psychiatry and mental health.* New York: Scribner, 1932. Pp. xiv + 330. \$2.75.—This book is intended to help the clergyman as a physician of souls; if he can recognize mental maladjustment he is in a position to check it before it needs specialized help. Some technical understanding of various forms of mental illness is needful. In dealing with fear and anxiety one primary technique is to get the patient to recognize them and accept them, to cease fearing fear. Sex plays a large part in mental maladjustments; no human being is absolutely male or female. The proportion of these elements in each human being determines his or her primary homo-erotic or hetero-erotic tendency. Auto-eroticism is an immature stage of sexual development, with much tragic misunderstanding sur-

rounding it. Love is essential in all sexual expressions. The American home shows marked signs of disintegration. Religious faith and practice have a definite bearing on the healing of mental disease. Jesus told his followers what psychiatrists tell their patients today—that they will be well when they have learned to lose their fixations; his attitude was that primary one toward mental illness—judge not.—*H. L. Stratton* (Worcester, Mass.).

4902. *Pearn, O. P. N. Mental nursing.* New York: William Wood, 1932. Pp. 304.—This publication is a simplified handbook on the care of mental patients, written primarily for attendants with little educational background. It contains brief chapters on subjects ranging from general household duties to "Anatomy," "Physiology," "Psychology," "Hygiene," and "Mental Diseases and Disorders."—*M. H. Erickson* (Worcester State Hospital).

4903. *Petroselli, F. Un caso di melanconia d'eccezionale durata.* (A case of melancholia of exceptional duration.) *Rass. stud. psichiat.*, 1932, 21, No. 2.—A case of melancholia with stupor, which lasted 13 years and was then cured. The large amount of interest attached to it comes from the uniformity of the clinical picture and the medico-legal interest in the duration.—*G. C. Ferrari* (Bologna).

4904. *Popek, K. K otázce kapilární mikroskopie u slabomyslných.* (Capillary microscopy in mental defectives.) *Rev. v neur. a psichiat.*, 1931, 28, 49-56.—Popek observed the capillaries of all ten fingers in 500 cases under the most diverse conditions, and found that with the same pressure and temperature the gross form of the vascular loops remained constant, although the size of the lumen depended on certain external and internal factors. The author studied 244 children from 3 to 17 years old, representing the different types of mental defect, and used as controls 217 normal children, 7-16 years of age, from the folk schools and schools for gifted children. The results reveal that the feeble-minded do not show a larger percentage of pathological capillary forms (archi- and mesoforms and the developmental stages arising from them) than normal children, and that the pathological forms are found in the most varied forms of mental deficiency. Therefore, capillary-microscopic findings cannot be used for differential diagnosis of the various types of mental defect. Popek criticizes von Höpfner's scheme of capillary morphogenesis, and denies the existence of a special hypoplastic type originating in defective development of the middle layer, since he has succeeded in transforming, under the microscope, neocapillaries into apparently hypoplastic formations. These are, in reality, capillaries which, because of the abrupt thinning of the skin around the nails, deviate only slightly from the optical axis of the microscope, and consequently only their most external part appears in the field. Popek, however, considers it justifiable to distinguish a neurotic type, which was found in about 20% of the 961 cases, although in only one-third was it associated with vasomotor disturbances or a neuropathic constitution. Among 264 infants, the capillary forms in 20% corresponded to those of

the adult; in the others, normal or mesoforms, or intermediary stages, developed in the course of 4 months. Mesoforms occurred especially in individuals with defects in the mesenchymous and mesoblastic organs. The author concludes that although capillary microscopy is valuable in its scientific relations, no diagnostic or therapeutic interpretations can be drawn from it.—*M. E. Morse* (Catonsville, Md.).

4905. Ranson, S. W., & Ingram, W. R. Catalepsy caused by lesions between the mammillary bodies and third nerve in the cat. *Amer. J. Physiol.*, 1932, 101, 690-696.—Bilateral electrolytic lesions in the region between the mammillary body and the third nerve in cats often lead to a condition of somnolence and exaggerated muscle tonus of the very plastic type. Cats with such lesions offer a striking resemblance to patients with encephalitis lethargica of the cataleptic type. They will maintain for many minutes unusual postures into which they have been placed by the experimenter, and the ease with which they can be molded into statuesque postures seems to be directly related to their somnolence and to the paucity of voluntary movements. The lesions in these cats occupy a brain region which is known to be involved in certain types of pathologic sleep in man. The possibility of producing prolonged sleep in cats by such lesions affords an opportunity for determining more accurately the location of this mechanism and for the study of the manner in which it regulates the change from the awakening to the sleeping state. Such experiments may also lead to an explanation of why in some patients somnolence is associated with an increased plastic tonus and catalepsy, and why in others it is associated with muscular relaxation.—*C. Landis* (New York Psychiatric Institute).

4906. Read, C. S. Out-patient psychiatry. *Lancet*, 1931, 221, 1438-1441.—The author uses the term *psychiatry* in the sense which includes all mental disorders either psychotic or psychoneurotic in nature and based on either functional or organic causes. The author recognizes that in his earlier experience the methods of psychopathology employed were not so effective as then believed. Much of the treatment was directed toward relieving the patient of the auto-intoxication which was believed to be basic to the disorder. The method of hypnotic suggestion was ardently advocated, but with further experience the psychotherapists gradually lost faith in the efficiency of the method until they actually lost the capacity to produce many of the phenomena of hypnosis in their patients. The author has been clinical psychologist at the West End Hospital for Nervous Diseases for six years. In his practice he always uses the term "mental" rather than "nervous" when speaking to the patients about their condition. By describing the disorder as it is, there is less difficulty in giving the patient an insight into his condition. In the out-patient clinic only a small proportion of the patients cared for are psychotic. Of the psychoneurotic patients the anxiety states and situational maladaptations occur most frequently. Results of treatment are frequently discouraging. Some patients are

constitutionally predisposed, so that they are unable to cope with the smallest stresses of life. Some cases are uncooperative after finding that they are not to be given medical treatment. Others respond readily to treatment. Many patients have difficulties arising from marital and familial disharmonies or may have mild depressions caused by abnormal sex practices. These can generally be adjusted effectively in a few interviews. No hard-and-fast rules can be laid down regarding treatment. Although psychoanalysis is the most scientific method of approach, it can be used in only a superficial way because of the time element. The methods of auto-suggestion and hypnosis still have a place in the therapy employed in some cases. Because it is necessary for the patient and the psychotherapist to be alone during visits, it is impossible to allow students to listen to the interviews. There is no serious objection to their presence during the preliminary interview. The mental out-patient department should prove to be of importance in the hygiene movement.—*D. J. Ingle* (Minnesota).

4907. Riggall, R. M. A case of multiple personality. *Lancet*, 1931, 221, 846-848.—The author describes the case of an unmarried woman of 37 who had at an earlier period shown seven or eight different personalities. At the present time only one personality other than the original appears. There is a struggle for dominance between the two. The case is very similar to the classical case of Miss Beauchamp described by Morton Prince.—*D. J. Ingle* (Minnesota).

4908. Rizzati, E. Lo stato attuale del concetto clinico di schizofrenia. (The present state of the clinical concept of schizophrenia.) *Schizofrenie*, 1931, 1, 37-66.—The author thinks that in various theories of schizophrenia there is an element of truth but that in general each observer is one-sided. In order that the examination of the schizoid affliction be systematic, it is necessary first of all to establish the pathological "quantum" (and also to get the qualitative value) and the phase of the disease; on this basis can be interpreted the results of static and serological examinations.—*R. Calabresi* (Rome).

4909. Rutherford, W. J. Psychosis in osteitis deformans. *Lancet*, 1931, 221, 350-351.—S. J. Hartfall in a recent paper has upheld the rarity of mental symptoms in osteitis deformans. The author reports a case from his own experience.—*D. J. Ingle* (Minnesota).

4910. Sigel, E. The mental hygiene problems of cardiac patients. *Smith Coll. Stud. Social Work*, 1932, 2, 336-357.—A psychiatric study of 31 patients in the Mandel Clinic of the Michael Reese Hospital in Chicago revealed the presence of neurotic symptoms in two types: those whose cardiac condition greatly restricted their activities, and those in whom no organic basis for the cardiac complaint could be found. There is almost perfect correlation between the degree of cardiac difficulty and the presence of mental-hygiene problems. The majority of cardiac patients, furthermore, do not complain of subjective symptoms. Those who do complain usually have emo-



tional problems.—*H. Lange* (New Hampshire State Hospital).

4911. **Smith, L. H.** *Psychotherapy and general practice.* *J. Amer. Med. Assoc.*, 1932, 98, 1783-1785.—The importance for the family physician of being able to recognize and treat disorders of emotional origin is pointed out. In general there are five age periods in the life of the individual during which the stresses and strains on mental life are likely to be particularly troublesome. The first is the period of early childhood. Here the child may be forced to share physical comforts and parental love with a newly born brother or sister. Illness during this period may teach the child bad habits of attention getting. The second period begins at puberty, during which the problem of sex is of major importance. The third period comes during later adolescence, when the individual must accept economic responsibilities. The fourth period comes at the menopause or involutional period. Here is the recognition that one is on the downhill side of life. The fifth age period occurs more indefinitely. It is the time at which the physical infirmities of old age seem greater than the enjoyable experiences of life.—*D. J. Ingle* (Minnesota).

4912. **Sties, A.** *L'iperinsulinismo spontaneo.* (Spontaneous hyperinsulinism.) *Riv. pat. nerv. e ment.*, 1932, 5, No. 1.—Clinical case of a 49-year-old patient with a syndrome of hypochondriac neurasthenia.—*G. C. Ferrari* (Bologna).

4913. **Stuchlik, J.** *Profylaxe traumatické neurosy.* (Prophylaxis of the traumatic neuroses.) *Rev. v neur. a psychiat.*, 1931, 28, 380-386.—By traumatic neuroses we understand the combination of various physical and psychic symptoms which, in the patient's mind, stand in causal relationship to the trauma. In addition to the injury as a starting point, there must be a mental elaboration and the idea of a goal. The last is always the gain represented by the illness. The first appearance of this phenomenon comes regularly at a later date than the direct physical and mental consequences of the injury. Prophylaxis must be purely psychic. It must bring the patient back to adequate thought and action, and replace the dominant idea of gain through illness by the idea of health. Psychotherapy should be begun very early, preferably immediately after the accident, and in every case should be carried to a conclusion. In the milder cases, simple psychotherapy or payment of the indemnity suffices. There are, however, severe cases in which indemnity plays no part; for these, the illness represents a refuge. Such cases need a psychotherapeutic specialist. Stuchlik depicts the much more serious difficulties of these patients, which make them regard their injuries as a relatively good solution.—*M. E. Morse* (Catonsville, Md.).

4914. **Taylor, W. S.** *Students' reactions to abnormal psychology.* *J. Abn. & Soc. Psychol.*, 1932, 27, 40-47.—As a result of some concern about the effect of courses in abnormal psychology on students, a questionnaire was presented to several classes at the close of the course. The majority answering the

questionnaire felt the course to be beneficial, giving evidence that the study of abnormal psychology need not be generally harmful, and may have a significant place in education. A copy of the questionnaire used is included in the report.—*C. H. Johnson* (Boston Psychopathic Hospital).

4915. **Timmer, A. P.** *Die schizothymen und zyklthymen Temperamente Kretschmers im Lichte des Pawlowschen bedingte Reflexe betrachtet.* (The schizothymic and cyclothymic temperaments of Kretschmer considered in the light of Pavlov's conditioned reflex.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1931, 133, 329.—Timmer undertakes to lay a foundation in brain physiology for Kretschmer's theory of temperaments. He transfers Pavlov's conceptions of radiation and induction to the characteristic methods of perception and psychomotor activity, as well as to the peculiarities of thought in the cyclothymic and schizothymic types. Although the conditioned reflex has nothing to do with conscious processes, its origin is connected with the cortex. It can be extinguished, but the releasing stimulus then exerts an inhibitory action on the flow of secretion in another conditioned reflex. The conditioned reflexes radiate; not only the excitation but also the inhibition of the parts of the cortex involved spreads to neighboring areas. The effect of radiation is to equalize the condition of the cortex. The opposite of radiation is induction; it increases the differences, since excitation in one cortical area causes inhibition in another. Radiation and induction may interfere with each other. The promptness and degree of stimulation and inhibition distinguish Pavlov's "sanguine" dog, of great alertness but little tenacity, from the "melancholy" dog, which reacts slowly but, after a reflex has once been established, uniformly for a long time. Timmer suspects that there are similar differences of radiation in hypomanic and depressive-inhibited individuals. The manner of radiation appears to him to explain "the foundation of cyclothymic temperament." On the other hand, the dominance of induction gives the individual schizothymic qualities. From this viewpoint, Timmer analyzes the results of previous experimental research on psychological types. In agreement with Pavlov's opinion that conditioned reflexes arise through the analytical function of the cortex, Timmer considers that conscious perception in man also depends on the characteristics of this analytical function. The differences in the characteristics of perception in the two constitutional types (circumference of consciousness, analytic as contrasted with synthetic methods of comprehension, fixed or fluctuating attention) are interpreted on this hypothesis. In schizothymics, induction predominates; one cortical area goes into intensive action, while other areas are inhibited by negative induction. This negative induction, however, exercises in turn a positive induction on the cortical area originally stimulated. In cyclothymics, in whom induction is slight and radiation predominates, the cortical fields surrounding the stimulated area show heightened radiative excitement and receptivity. These mechanisms are followed out in the physiology of

sensation (simultaneous contrast). Timmer also assumes radiation and induction in the cortical motor fields, and explains in a similar way the motor characteristics of schizothymics and cyclothymics, discussing in this connection the problems of psychomotor rhythm and writing. This viewpoint is further extended to the difference in methods of association, especially to the experimentally proved tendency of schizothymics to perseveration; and finally to the realm of character. The blunt alternative of the schizophrenia is assumed to correspond to the orientation of thought which he sets up for himself: "an idea cannot endure the presence of its opposite; hence the latter is inhibited or repressed by means of induction." Cyclothymic activity and ability to adapt arise from the absence of strong induction with its weight of antithesis. The application of Pavlov's theory to psychiatry is, as Timmer himself emphasizes, not ripe for discussion, to say the least. Schizophrenia is not "a too-widely extended induction"; mania is not a pathological increase of radiation, nor melancholia an abnormally increased inhibition. Researches on the conditioned reflex in psychotics are as yet all too rare, but they point in the anticipated direction.—*M. E. Morse* (Catonsville, Md.).

4916. Unger, M. *Ein Fall von Sprechhemmung.* (A case of speech inhibition.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 3, 582-586.—A report on an extreme case of retreat from reality. Sickness, inability to speak, inability to think logically, were all believed to be defenses which the patient, a woman of middle age, used to avoid exposure to possible defeat. The relationships within the home during childhood, which were basic to the development of the neuroses, are pointed out as well as the therapeutic approach.—*O. N. de Weerd* (Beloit).

4917. Vygotski, L. O. [The fundamental present-day problems of the study of defective children.] *Trudy II Univ. Moskva*, 1, 77-106.—The author gives a general survey of the different defects in children, the modifications in development caused by these defects, and the different problems involved in the question.—*A. B. Hunter* (Clark).

[See also abstracts 4673, 4719, 4755, 4919, 4998, 5007, 5020.]

#### SOCIAL FUNCTIONS OF THE INDIVIDUAL

4918. Asboe, W. *Notes on childbirth in Manchate (Western Tibet).* *Man*, 1932, 32, 161.—A note concerning tabus at the time of pregnancy and confinement.—*R. S. Wallis* (Hamline).

4919. Baeyer, W. V. *Ein Fall von psychopathischer Selbstbeziehung.* (A case of psychopathic self-accusation.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1931, 135, 779-793.—The problem of self-accusation, important both clinically and forensically, is thoroughly dealt with in this work, which investigates the motivation, life history and type of a 35-year-old servant girl who accused herself of certain passionate murders and other sex offenses. The story is that of an illegitimate child of a feeble-minded mother, who was early abandoned and brought up by charity.

Later she lived in continual and frequent change between servant positions and hospital. In character, she was found to be impulsive, disharmonious, greedy for gain, and unstable, with an inclination toward hysterical reactions. Her personality structure is partly explained by the development of a life situation in which attention could be compelled by arousing hostility. The securing of pleasure by self-abasement is to be understood in relation to the striving for revenge for the severity of her upbringing. In the beginning, there was no falsification of memory present, but later the elaborated experiences became so deeply embedded that a genuine feeling of guilt resulted, the growth of which was first brought out in hypnosis. The psychopathic reaction of self-accusation is related to pseudologia.—*S. Krauss* (Frankfurt a.M.).

4920. Ball, R. J. *Introversion-extroversion in a group of convicts.* *J. Abn. & Soc. Psychol.*, 1932, 26, 422-428.—Report of a study of a group of 136 native born and literate male convicts, whose ages ranged between 17 and 25 years inclusive, and who had been in prison from six months to two years. The Neymann-Kohlstedt Diagnostic Test was used. The results show that there was a ratio of 3 to 1 in favor of introversion. An analysis of the individual tests shows that 19 of the 50 questions were answered introvertively by more than 62% of the subjects and 10 questions answered extrovertively by more than 62% of the subjects.—*C. H. Johnson* (Boston Psychopathic Hospital).

4921. Beach, W. G. *Oriental crime in California: a study of offenses committed by Orientals in that state, 1900-1927.* Stanford University, Calif.: Stanford Univ. Press, 1932. Pp. 98. \$1.00.—The object of this study was to ascertain "the place which the Chinese and Japanese residents in California occupy in the records of crime committed in the state; and to note specifically the laws which they are prone to break." Material was collected from the "police blotters of the county and city police departments and from the record books of the penal institutions in the state." Analysis was made in terms of racial origin, age, locality, sex distribution, population, and nature of crime; and there was a comparison with similar data relative to other racial groups. The author says: "Oriental immigrants do not differ from other aliens in the United States. Their offences . . . are the consequences primarily of failure to observe city ordinances and similar state enactments, an understanding of which their very newness to American life makes difficult. . . . The larger part of their offences are not of major importance. . . . In respect to more serious crimes . . . as compared with offenders of the white race they stand reasonably high." Unbalanced sex distribution and segregation operate as serious factors influencing Oriental crime, especially among the Chinese.—*O. L. Harvey* (Boston, Mass.).

4922. Beiswanger, G. W. *Artist, philosopher, and the ideal society.* *J. Phil.*, 1931, 28, 561-580.—A comparison of Plato's *Republic* and Romain Rolland's *Jean-Christophe* shows the respective methods

of the philosopher and the artist in dealing with the ideal society. The one builds by syllogistic processes from initial assumptions to the details, selecting values from existing society, but drawing out the implications, and visioning far beyond it. The artist takes life as he finds it, discovers meaning within it, and reveals its hidden values. Out of this material an ideal society is suggested. Plato may be shot through with illegitimate processes of reasoning, but it is the function of the philosopher to go beyond the prevailing social structure, to divine its drift, to infer its consequences, and perhaps to control its future by constructing an ideal society.—*E. T. Mitchell* (Texas).

4923. **Berge, S., & Wagner, K.** Über die Anwendung der Affinitätszahl und der Blockberechnung in der anthropologischen Statistik. (The application of the coefficient of association and the cohesion of groups in anthropological statistics.) *Avhandl. Norske Videnskapsakad. Oslo, Mat.-Naturvidensk.*, 1929, 1-19. —(*Biol. Abst.* VI: 12592).

4924. **Bossard, J. H. S.** Residential propinquity in marriage selection. *Amer. J. Sociol.*, 1932, 38, 219-224.—Five thousand consecutive marriage licenses, in which one or both applicants were residents of Philadelphia, were tabulated according to distance between the residences of the spouses. In one-third of all the marriages they lived within five blocks or less of each other, and the percentage of marriages decreased steadily and markedly as the distance between residences of the contracting parties increased. The extent to which the rôle of residential propinquity is confined to social areas in which specific attributes or combinations of attributes are concentrated will be considered in the series of projects of which this was the initial step.—(Courtesy *Amer. J. Sociol.*).

4925. **Brearily, H. C.** Genetic sociology: a preliminary note. *Sociol. & Soc. Res.*, 1932, 16, 463-465.—Because class-room work dealing with the sociology of childhood has been almost non-existent, the writer describes a course in genetic sociology. Bibliography is included.—*J. R. Hilgard* (Yale).

4926. **Brown, G. G.** Legitimacy and paternity among the Hehe. *Amer. J. Sociol.*, 1932, 38, 185-193.—Among the Hehe, a Bantu tribe numbering about 52,000 in Tanganyika Territory in East Africa, clan membership and consequent social attributes are derived patrilineally. If the mother is unmarried the physical father customarily becomes her husband and the child's social father. If the mother is married and the paternity of the husband is questioned, the identity of the physical father is sought; and, if determined, the physical father must, after making the necessary payments, assume the full functions of paternity; otherwise, i.e., if the physical father is not identified, the husband acts as social father. The child thus does not lack a social father, and his status is not affected by the irregularity of his birth. There is, therefore, no illegitimacy among the Hehe. Cultural values condition this result; unchastity evokes little social disapproval, children are universally desired, and the child receives full status without any

conflict of social forces.—(Courtesy *Amer. J. Sociol.*).

4927. **DeBeaux, O.** *Etica biologica.* (Biological ethics.) *Atti Soc. ital. prog. sci., XIX riunione*, 1931, 2, 310-311.—*R. Calabresi* (Rome).

4928. **Dewey, J.** Individualität in der Gegenwart. (Individuality in the present day world.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 567-576.—Translation of the sixth and last of a series of articles under the title, *Individualism in the Past and Present*, which appeared in the *New Republic*, 1930. In any static social order behavior forms and ideals are so related that resignation may have a meaning. When social forms are constantly changing, resignation can only mean either the blind acceptance of an older fixed order or a drifting without fixed goals. The attacks upon the so-called mechanistic character of science and industry are founded upon fixed philosophic and religious conceptions born of a time which was in reality in enmity to man. It should be realized at the same time that all of these "systems" are embodied in active thoughts and conceptions of living human beings and represent their attitudes toward the social orders about them. To those who work in the various fields of industry and science these are organizations, not fixed, but in the process of development the goals of which are not yet in sight. The participation in these activities involves not the simple resigned acceptance of a new order to replace some other, but the hope in the possibility of new human values which may be found, however undefined they may be. Applied to our social problems, this means that until the scientific method of investigating "evils" has become united with human sympathy there can be no real progress in their solution. A stable personality is not developed by passive acceptance of any fixed system and its conceptions, but by active participation in the movements of living social organizations. The dangers for any individual in withdrawal from the surrounding social activities are urgently pointed out by psychiatrists under the concept of "retreat from reality."—*O. N. de Weerd* (Beloit).

4929. **Dingwall, E. J.** The new witchcraft. *Psyche*, 1932, No. 48, 67-73.—While scientific discovery is making rapid progress, the picture has its darker side. The scientific manner of thinking is forgotten, as while appreciating the benefits of science, we accept conclusions because they are advocated by some person of prominence. This gives rise to a modern witchcraft. The witchcraft of olden times was for the ignorant, but that of today enjoys the respect of intellectual groups, and, like the old, lives by faith. Grants are made for the study of witchcraft in New Guinea, but a request for a grant to study the "shamans" of places nearer home would meet with ridicule.—*T. R. Garth* (Denver).

4930. **Driver, H. E., & Kroeber, A. L.** Quantitative expression of cultural relationships. *Univ. Calif. Publ. Amer. Archaeol. & Ethnol.*, 1932, 31, 211-256.—The essay is principally methodological, and aims at establishing, within single culture areas, the degree of similarity of group cultures; the meas-



ure of this similarity is the number of separate culture traits which are common, expressed as a proportion of all traits observed in each culture, and in other ways. The Yule  $Q$  and the Pearson  $r$  are also used. The data of Linton for Polynesia, Spier for the sun dance, Kroeber for the northwest coast, and Teggman for northeast Peru are evaluated by this technique, and the reconstructions so obtained are compared with the historical information derived for the same cultures from other sources. It is concluded that the statistical method is ancillary to the ethnological methods in use, corroborating them, expressing the results more precisely, and indicating occasional corrections.—*R. R. Willoughby* (Clark).

4931. **Edwards, A. S.** *Experimental social psychology.* *J. Abn. & Soc. Psychol.*, 1932, 26, 349-354.—In the development of a course in experimental psychology, instructions for 55 experiments were worked out; most of them were tried out with college students and some of them rewritten and revised. Of the original 55, the author believes that 30 may possibly survive as tentative experiments for social psychology.—*C. H. Johnson* (Boston Psychopathic Hospital).

4932. **English, H. B.** *The emotional short-circuiting of thought.* *J. Abn. & Soc. Psychol.*, 1932, 26, 402-404.—In the art of propaganda, the attempt is made to use catch-words which will arouse a group of emotions with a corresponding complex of ideas so effectively that reflection becomes impossible.—*C. H. Johnson* (Boston Psychopathic Hospital).

4933. **Ettinger, C. J.** *The problem of crime.* New York: Long & Smith, 1932. Pp. viii + 538. \$3.00.—This work treats of three main problems: the criminal, the machinery of justice, and society's relation to the criminal. The basic thesis presented is that, contrary to general belief, crime is in its nature essentially dynamic. The author has drawn upon a considerable number of sources; the historical point of view is carefully followed out. Examples of special topics developed are: the cost and mechanics of crime; the sociological, economic, political and psychiatric approaches to the study of the delinquent; the police system; scientific methods of crime detection; traditional criminal law and procedure; the evolution of penology and the prison system; reformatories, prison democracy and riots, parole, probation and the prophylactics of crime.—*P. C. Squires* (Clinton, N. Y.).

4934. **Fielding, W. J.** *Love and the sex emotions; their individual and social aspects.* New York: Dodd, Mead, 1932. Pp. 371. \$2.50.—*R. R. Willoughby* (Clark).

4935. **Francke, H.** *Juvenile courts in Germany.* *Sociol. & Soc. Res.*, 1932, 16, 403-416.—A consideration of the organization, methods and procedure of the juvenile court in Germany both historically and at the present time, by the juvenile court judge in Berlin.—*J. R. Hilgard* (Yale).

4936. **Greene, J. S.** [Ed.] *I was a stutterer; stories from life.* New York: Grafton, 1932. Pp. xiv + 227. \$3.00.—The book contains 20 autobiographical sketches of "readjusted personalities" or individuals whose stuttering was cured at Greene's clinic. The sketches contain brief details of the "stutterers' inner selves" before and after the cure. Comments by the author (editor) dealing with the specific problem of each individual follow the sketches. A brief discussion of the "why of stuttering" precedes the sketches.—*C. V. Hudgins* (Clarke School).

4937. **Hartmann, N.** *Ethics. Volume 3, Moral freedom.* New York: Macmillan, 1932. Pp. 288. \$3.50.—*R. R. Willoughby* (Clark).

4938. **Harvey, O. L.** *The questionnaire as used in recent studies of human sexual behavior.* *J. Abn. & Soc. Psychol.*, 1932, 26, 379-389.—Because of the difficulty of observing sexual behavior in human beings, the questionnaire offers a way of securing data about such behavior. Among the disadvantages of the use of the questionnaire are: (1) it investigates only one aspect of personality; (2) more than 40% return is seldom to be expected; (3) unless questions are comprehensive and carefully worded, they are liable to uncertain interpretation; (4) questionnaires are liable to be seized by the newspapers, which are not always discriminating. The advantages are: (1) it seeks out its subjects—the investigator does not have to wait for cases to be reported to the clinic; (2) it is extensive in application, yet relatively cheap; (3) it is generally brief and is a time-saving method of securing data. An ideal procedure for using a questionnaire is suggested: (1) getting a representative sampling of individuals from a given population; (2) using follow-up letters to increase returns; (3) attempting to secure a complete physical examination on a small representative group of subjects; (4) arranging the questionnaire to permit checking; (5) using personal interviews to serve as an indirect check on the check-list questionnaire.—*C. H. Johnson* (Boston Psychopathic Hospital).

4939. **Hu, I.** *An experiment on adult silent and oral reading and the effect of different kinds of material.* *Chinese J. Educ. Res.*, 1931, 7, 55-64.—The author presents the result of a study of the efficiency of silent versus oral reading. The materials used are of three kinds: (1) a passage of 720 words taken from the famous Chinese novel *The Dream of Red Chamber*; (2) a passage of 719 words taken from classical prose; and (3) a passage of 703 words taken from a classical poem. 50 Chinese students in the University of Chicago served as subjects, each reading each kind of material twice, once silently and once orally. Precautions were taken for compensating practice and other effects. Records of a few readers were obtained for their eye movements in the two types of reading for the different kinds of materials. Efficiency of reading was measured by answering 20 questions after reading each kind of material twice. The speed of silent and oral reading was calculated in terms of seconds per 100 words. The following table is the result:

| Reading          | Novel<br>Sec. (P.E.) | Prose<br>Sec. (P.E.) | Poetry<br>Sec. (P.E.) |
|------------------|----------------------|----------------------|-----------------------|
| Oral . . . . .   | 26.6 (.7)            | 27.3 (.7)            | 33.9 (.8)             |
| Silent . . . . . | 20.1 (.7)            | 24.1 (.7)            | 28.7 (.8)             |

Eye-movement records of 10 subjects for reading the different kinds of materials are as follows (in 25ths of a second):

| Materials        | Pauses | Duration | Regressive Movements |
|------------------|--------|----------|----------------------|
| Novel . . . . .  | 11.9   | 8.2      | .6                   |
| Prose . . . . .  | 11.9   | 8.3      | .5                   |
| Poetry . . . . . | 13.5   | 8.7      | .8                   |

The author concludes that, no matter what the reading material is, silent reading is always more efficient than oral reading. But oral reading still has its values: (1) it affords better fixation through many sense departments; (2) it helps us to get the right sound by first reading; and (3) it is helpful especially for children first learning to speak and for public speakers.—*S. K. Chou* (Tsing Hua University, Peiping, China).

4940. **Jameson, S. H.** The concept of organizational personality. *Sociol. & Soc. Res.*, 1932, 16, 417-426.—Sociological analysis of certain social welfare organizations resulted in the formulation of an hypothesis of organizational personality applying to the organization itself.—*J. R. Hilgard* (Yale).

4941. **Jenness, A.** Social influences in the change of opinion. *J. Abn. & Soc. Psychol.*, 1932, 27, 29-34.—The members of a group express as individuals views on some topic. Later the group is informed of the majority viewpoint, following which each individual again expresses his views. This article is the first of a series on the extent to which the individual alters his opinion to agree with the majority view. The topics considered were felt to be of sufficient interest to hold the attention of the subjects and possible of considerable diversity of opinion.—*C. H. Johnson* (Boston Psychopathic Hospital).

4942. **Katzoff, S. L.** Why marriage? San Francisco: Mercury Press, 1932. Pp. 140. \$1.00.—Marriage is "the only continuously flexible and adjustable method or plan, and offers the greatest opportunity for wholesome biological and emotional expression." Difficulties arise from lack of fitness for marriage. Advice is offered regarding the biological and psychological factors involved in marital adjustment.—*M. P. Montgomery* (Faribault, Minn.).

4943. **Kirk, W.** An approach to sociological research. *Sociol. & Soc. Res.*, 1932, 16, 336-344.—The approaches to sociological research of Sumner, Thomas and Znaniecki, Pareto, and others are characterized. The emphasis today on quantitative studies is rightly placed.—*J. R. Hilgard* (Yale).

4944. **Kirkpatrick, C.** A tentative study in experimental social psychology. *Amer. J. Sociol.*, 1932, 38, 194-206.—A simple class-room experiment in social psychology was conducted to illustrate certain difficulties in experimental sociology and to investigate in a tentative way (1) the distortion that takes place with the social transmission of rumor,

(2) the reports of students in regard to pleasant as compared with unpleasant rumor, (3) the influence of a precautionary phrase such as "it is rumored that," and (4) the influence of sex and intelligence upon belief verbalization. A written record of versions of alleged news items orally transmitted revealed a high degree of distortion, especially in regard to condensation and transposition of the precautionary phrase. Belief ratings apparently showed a more general expression of belief in the unpleasant news, but when plausibility ratings of the items were taken into account the good news received relatively higher belief ratings.—(Courtesy *Amer. J. Sociol.*).

4945. **Lesser, A.** Superstition. *J. Phil.*, 1931, 28, 617-628.—Superstition is usually defined as belief not founded on rational conceptions of the world. But by this use the word includes all pre-scientific and non-naturalistic beliefs, and besides provides no objective basis for distinguishing a superstition from a legitimate belief. The difficulty is obviated by defining a superstition as a belief or practice which is isolated from a system of reference. If a belief is grounded upon, and has its place in, a system of explanation of life and nature, then, however primitive the system may be, the belief has a legitimate place and is not a superstition. On the other hand even true beliefs when not so grounded are, in the one who holds them, superstitions. Many popular superstitions of the folklore type are isolated survivals of what were once elements of systems. Scraps of information lacking systematic background are, however, also superstition.—*E. T. Mitchell* (Texas).

4946. **Levinger, E.** Zur Psychopathologie des Rassenhasses. (The psychopathology of race hatred.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1930, 129, 398.—According to the steps in sexual development, called by the psychoanalysts "phallic," the historical and psychological connection between castration and circumcision gives a viewpoint for the understanding of race hatred (in this case, hatred of Jews). The connection is illustrated by study of material from a psychosis.—*M. E. Morse* (Hyattsville, Md.).

4947. **Lumpkin, K. D.** Parental conditions of Wisconsin girl delinquents. *Amer. J. Sociol.*, 1932, 38, 232-239.—Among the parental conditions having significance for the delinquent behavior of 252 girls committed to the Wisconsin Industrial School, socio-economic status is one. 95% of the girls came from manual worker homes, and, according to the investigator's estimate, in 71.4% of 220 cases socio-economic conditions were distinctly unfavorable. The family group tended to be considerably larger than families in general. About two-thirds of the homes were broken and in 42.2% of these there was a step-parent or foster parent. Social defective tendencies appeared 443 times in 189 families. The most prominent among these were delinquency, alcoholism, and sex irregularity. Not only were important aspects of the girl's parental background unfavorable in the large majority of instances, but the group averaged far below normal in intelligence. The modal IQ class was 66-75. 40% of those with

an IQ of 75 and under belonged to the unfavorable background group.—(Courtesy *Amer. J. Sociol.*).

4948. **Mangold, G. B.** *Social pathology*. New York: Macmillan, 1932. Pp. xxii + 736. \$3.00.—This volume presents a wide variety of topics on social problems; there are chapters on poverty, care of the aged, accidents, child labor, unemployment, sickness, feeble-mindedness, mental hygiene, crime, the family, immigration, race relations, race improvement, etc.—*J. C. Spence* (Clark).

4949. **Meek, C. K.** *Pot-burial in Nigeria*. *Man*, 1932, 32, 160.—Pot-burial is most common among the tribes of the Niger and Sokoto provinces. It is given to all members of the community except those who have died from leprosy or smallpox. The body is placed in a sitting posture and the mouth of the pot is covered with a smaller pot with a pierced opening to allow the escape of the soul of the dead. Practices according to age, degree of wealth, and rank differ somewhat from tribe to tribe.—*R. S. Wallis* (Hamline).

4950. **Mendes-Correa, A. A.** *La nouvelle anthropologie criminelle*. (The new criminal anthropology.) *Scientia*, 1932, 51, 357-365.—An individual study of each criminal, physiological, psychological, and especially moral, to determine treatment is advocated.—*R. G. Sherwood* (Redmond, Washington).

4951. **Milburn, S.** *Magic and charms of Ijebu province, southern Nigeria*. *Man*, 1932, 32, 194.—A list of various ways to harm one's enemies without incurring danger oneself. These include curses reinforced by medicine, the preparation and destruction of models of the enemy, and tying the spirit of the victim by a chain, staple, needle or ring manufactured and sold for that purpose by a brass-smith.—*R. S. Wallis* (Hamline).

4952. **Oeser, O. E.** *Social psychology as an experimental science*. *Psyche*, 1932, No. 48, 30-42.—Ordinary experimental psychology is already to some extent a study of groups, and it is possible to apply its methods to sociological groups. Two methods are available: (1) Examining outstanding individuals whose traits can be traced in the mass of humanity; (2) applying tests to large groups. In studying racial differences, psycho-physical tests would be much better than intelligence tests. There should be an international attack on the problem, such as is carried on by physics and astronomy.—*T. R. Garth* (Denver).

4953. **Pear, T. H.** *Speech as an expression of personality*. *Brit. J. Educ. Psychol.*, 1932, 2, 139-152.—Discusses the close relationship between speech and personality as distinguished from character. Effective speech is characterized as a high grade skill vitally necessary in modern democratic society, but with inadequate criteria. Psychology and psychological method are vitally needed to determine criteria.—*K. M. Cowdery* (Stanford).

4954. **Rangacher, C.** *Differences in perseveration among Jewish and English boys*. *Brit. J. Educ. Psychol.*, 1932, 2, 199-211.—Measures of perseveration consisting principally of timed writing of alter-

nate specimens of customary and similar but strange material (reliabilities .759 to .935) were given to 38 Jewish and 35 English boys in standard five. The Jewish boys show a higher degree of perseveration independent of intelligence and of speed, although the Jewish group rank higher in both intelligence and speed for first trials of writing familiar material.—*K. M. Cowdery* (Stanford).

4955. **Shaw, M. E.** *A comparison of individuals and small groups in the rational solution of complex problems*. *Amer. J. Psychol.*, 1932, 44, 491-504.—Groups of four people were compared with separate individuals in ability to solve complex problems. The subjects were members of a class in social psychology. The problems were of the conventional puzzle type, each having only one correct solution. The groups were roughly equated for ability. Of the possible solutions individuals turned in 7.9% correct and groups turned in 53% correct. Secondary criteria also indicated superiority of the groups. The group advantage seems to lie largely in the checking of errors and rejection of incorrect solutions.—*M. N. Crook* (University of California at Los Angeles).

4956. **Siegel, C.** *Die Grundformen der Lebensanschauung*. (Fundamental forms of the fundamental attitudes toward life.) *Vjsch. f. Jugendk.*, 1931, 1, 225-233.—The author's purpose is to develop a systematic, objective derivation of all possible attitudes toward life and the results of these in behavior. He discusses briefly wherein the value of life consists; the relation between life-attitudes and ethics; the life-attitudes at different ages of the individual and at various historical periods; and the biological bases for the development of a life-attitude. The individual is usually not conscious of his attitude. In the child, it comes to expression simply in behavior; but in the adult, so far as he is capable of reflection, a theoretical evaluation is added. The theory may be at variance with the actual behavior, e.g., as in Schopenhauer and Nietzsche. This is in reality a double evaluation, corresponding to the polarity of human beings, especially of complicated natures. The life-attitude is built on the foundation of comparatively primitive steps of recognition in certain elementary experiences—love as the concentration and crown of life, death as negation, religious feelings, the question of the continuity of life beyond the individual. These, arising at a comparatively primitive stage in both the individual and the race, are the foundations of life attitudes. As these experiences are different for each person, so the resultant attitudes are also different. In the different accentuation of the basic factors, the first division is between affirmation and negation—life as activity and development vs. life as resignation and preparation for death. A further cleavage is between persons with an increased and with a decreased ego-feeling. According to the rhythm of life, persons are static or dynamic, and according to the aspect of experience which is accentuated, they are divided into men of action, feeling, and thought. Combining all these categories, Siegel arrives at 8 fundamental combinations of types, characteristics, and attitudes or activi-



ties. These are given in tabular form, a condensation of which follows: (1) *Depressive-static*: feeling—resignation and sacrifice; thought—contemplation. (2) *Depressive-dynamic*: sympathetic—abandonment to every influence. (3) *Euphoric-static*: sympathetic—service to society. (4) *Euphoric-dynamic*: (a) sympathetic—action, progress; feeling—unbounded enjoyment; (b) aggressive—action, activity as such; thought—development of personality. Three great thinkers have independently reached a practically similar classification, viz., Aristotle, Kierkegaard, the Danish religious philosopher of the nineteenth century, and Tolstoi, in his “kingdom of God on earth.”—*M. E. Morse* (Catonsville, Md.).

4957. **Smith, H. N.** A scale for measuring attitudes about prohibition. *J. Abn. & Soc. Psychol.*, 1932, 26, 429-437.—The technique used in the construction of the scale was the same as that employed by Thurstone and Chave in their scale for measuring attitudes about the church. The scale as finally presented to a group of 281 college students, 178 Y. W. C. A. members, 206 members of the Methodist church and 200 business men, had 45 statements. The Methodist members were as a whole strongly in favor of prohibition. The Y. W. C. A. members showed a majority in favor of prohibition. The students revealed a majority in favor of prohibition with a minority for some modification of the restriction. The business group as a whole was more antagonistic toward prohibition than any of the other groups. While few men in this group would subscribe to the open saloon system, the majority of them would subscribe to some modification of the degree of restriction.—*C. H. Johnson* (Boston Psychopathic Hospital).

4958. **Squires, P. C.** Modern psychology and the law: a major problem of social science. *Scient. Mo.*, 1932, 35, 138-141.—*J. F. Dashiell* (North Carolina).

4959. **Talbert, E. L.** The modern novel and the response of the reader. *J. Abn. & Soc. Psychol.*, 1932, 26, 409-414.—The novel is responded to according to the constitution of the individual reader. The habits and affective tones with which a given language symbol is linked vary from person to person and group to group.—*C. H. Johnson* (Boston Psychopathic Hospital).

4960. **Thomson, D. F.** Ceremonial presentation of fire in north Queensland. *Man*, 1932, 32, 198.—The importance of fire in the social life of the natives of north Queensland, Australia, is here described as it was observed in four separate tribes. The descriptions are grouped under three headings: the significance of the sharing of fire as the center of family life and as a part of the marriage ceremony; the ceremonial presentation of fire to visitors; mourning and the ceremonial extinction of fire.—*R. S. Wallis* (Hamline).

4961. **Thurnwald, R.** Social transformations in East Africa. *Amer. J. Sociol.*, 1932, 38, 175-184.—The process of adaptation in Tanganyika Territory in East Africa are relative to such geographical factors as permanent and temporary character of soil and climate, and to social conditions such as organi-

zation of tribes and clans. Different degrees and kinds of acculturation must be distinguished. Peace, following on European rule, has brought about a different character in the movements of the peoples. Whereas in times of warfare they moved in groups, such as clans or bands, they are now able to wander individually. A further result of peace is the contact between many tribes. The introduction of modern schooling is based on the Swahili language, which is in the way of becoming the foundation of a nation in the making. The introduction of modern money is dissolving the former bonds of kin and family. The younger generation strives for education and knowledge as a means of prestige and wealth. In this way originates a class of new leaders. Education of the women makes them despise the old field work and increases the number of their wants. This operates against polygamy. The rapidly spreading process of dissolution of family and clan is usually termed “detrribalization” and implies a change in mental attitude. Everywhere, however, old customs and ways of thinking persist. Out of the mixture of both, determined by the conditions of life, a new African world will be built up by the Africans themselves.—(Courtesy *Amer. J. Sociol.*).

4962. **Tinker, M. A.** The relation of speed to comprehension in reading. *School & Soc.*, 1932, 36, 158-160.—After considering the results of pertinent experiments in the field of reading, the author concludes: (1) that no high degree of relationship exists between either measures of comprehension or of speed of reading when these are derived on the basis of performance with dissimilar textual materials; (2) that there are many reading skills which are somewhat independent; and (3) that only when the same or highly comparable standard materials are used to determine relative speed and readiness in comprehension do we find high intercorrelations between measures of these abilities.—*H. L. Koch* (Chicago).

4963. **Vleugels, W.** Soziologie und Psychologie in der Massenforschung. (Sociology and psychology in the study of groups.) *Zentbl. f. Psychotherap.*, 1931, 5, 13.—Vleugels contrasts the older and the newer view of mass psychology and discusses the extent to which they can be harmonized; also the interpretation of mass psychology in terms of the Freudian theory. Much of the modern study of the masses masquerades under the term “mass psychology,” although the viewpoint and interests of some of its founders were sociological. The term should be used only in reference to the psychological phenomena of the crowd in a narrower sense. The field of social psychology is much broader than any possible conception of the masses. The older conception of the masses was that of crowds bound together temporarily for revolutionary purposes. The modern conception is that of the activities of concrete, powerful collections of people. The common characteristic of the masses in both the older and the newer sense is belligerent solidarity. We speak of masses as a social phenomenon when there is a common feeling among many persons based on opposition to accepted conditions, which the members re-

gard as interfering with their rights. The new psychology of the masses agrees essentially with the older, but has a deeper theoretical foundation. The phenomena are in harmony with Freudian concepts. In mass activities, the members suffer a temporary regression to a primitive psychological level, which is satisfied by a compulsive drive, not controlled by the ego. The essentials of crowd psychology can be explained according to the type and strength of the affective bonds uniting the members. The mass first becomes a social force when the individuals find a leader with whom they can identify themselves. All that was said in the older literature concerning the suggestibility of the individual in a crowd finds an exact interpretation in Freud's theory of identification. The comparison of mass psychology with hypnotic action is also correct, as both are explained through identification. This replacement of individual ego-ideals by a single objective has applications to other social forces far beyond the mass theory. The more easily external ideals are customarily imposed on the individual, the more quickly and completely he incorporates himself in the mass-experience. In the discussion of the relation of the mob to criminality, Vleugels brings out the point that during mass activities the crowd considers as ethical acts which the individual members would regard as wrong. After the experience is over, the individual considers himself entirely without responsibility for deeds committed during the period.—*M. E. Morse* (Hyattsville, Md.).

4964. Wells, D. Controlled reading. *Amer. J. Ophth.*, 1932, 15, 508-513.—In cases where there is a tendency to suppress the image of one of the eyes, a device for holding a bar or bars between the eyes and the printed page is advocated. This compels the use of both eyes at least part of the time while reading every line and favors development of binocular reading habits.—*C. W. Darrow* (Behavior Research Fund, Chicago).

4965. Wright, M. B. Sociological factors which influence suicide. *Psyche*, 1932, No. 46, 51-61.—This paper is based upon *Le Suicide* by Durkheim, which, though it is thirty years old, the writer considers a classic. We have the egoist, the altruist, and the lawless suicide. More Protestants commit suicide than Catholics. While many would prefer to stress individual psychology and unconscious urges, the author's conclusion is that insufficient allowance is made for pressure of environment and social factors, in considering causes of suicide.—*T. R. Garth* (Denver).

4966. Yates, T. J. A. Bantu marriage and the birth of the first child. *Mos*, 1932, 32, 159.—Marriage status among the Bantu seems to have very little meaning apart from parenthood. Marriage comprises a number of ceremonies beginning with betrothal and ending with the birth of the first child. To the native marriage is the founding of a family, and is therefore completed only by the arrival of progeny. The payment of the final instalment of the bride price or the return of bride-wealth are both dependent upon the existence of children. Divorce, annulment, the establishment of a separate home, and

avoidance customs all seem to bear close relationship to presence or absence of children. The South African native courts, in adopting the European point of view that consummation of marriage consists in coitus instead of in conception and childbirth, may well be disastrous to the future development of Bantu culture. To deal with marriage apart from the family is unscientific. There are 15 references.—*R. S. Wallis* (Hamline).

4967. Young, P. V. Varieties of German contemporary sociology. *Sociol. & Soc. Res.*, 1932, 16, 355-366.—*J. R. Hülgaard* (Yale).

4968. Zipf, G. K. Selected studies of the principle of relative frequency in language. Cambridge: Harvard Univ. Press, 1932. Pp. 57. \$2.50.—*R. R. Wiloughby* (Clark).

[See also abstracts 4745, 4762, 4832, 4840, 4871, 4981, 5002, 5008, 5014, 5024, 5029, 5046, 5051, 5080.]

#### INDUSTRIAL AND PERSONNEL PROBLEMS

4969. Beckman, R. O. Standardizing the selection of apprentices. *J. Bus., Univ. of Chicago*, 1932, 5, 228-240.—A contrast is shown between scientific methods of selection and the cruder methods used by labor organizations or employers' associations. A plea is made for an employment research bureau of national scope. A brief outline of the fundamentals of such a research program is present.—*H. E. Burt* (Ohio State).

4970. Disk, E. [A provisory analysis of the work of employees in the shoe industry.] *Psikhotekn. i psikhofsiol. truda*, 1930, 3, 37-54.—The author gives a detailed and well organized description of the different phases of this work with the view of discovering the basal psychological functions involved. He finds that the most important functions depend upon visual perceptions and, in certain specialized tasks, upon tactile sensitivity and rhythm of movement.—*A. B. Hunter* (Clark).

4971. Dobrowolski, E. E., & Hudima, W. D. [Individual psychotechnical examinations for locomotive workers.] *Psikhotekn. i psikhofsiol. truda*, 1930, 3, 55-62.—Having no specialized apparatus, the authors used simple paper and pencil tests: the American arithmetic tests, the attention tests of Bourdon and Schulte, the memory tests of Giese and Ranschburg, and self-control tests (Couvé's calculations). Although the tests do not seem adequate for discovering the abilities of mechanics, assistant mechanics, and engineers, still the authors found a 83% correlation between their results and the opinions of the administrative heads.—*A. B. Hunter* (Clark).

4972. Gemelli, A. L'orientamento attuale della psicologia industriale e i suoi risultati. (Present-day orientation in industrial psychology and its results.) *Atti Soc. ital. prog. sci., XX riunioni*, 1932, 1, 93-98; *Organiz. Scient. del Lav.*, 1932, 7, 62-64.—The criticisms directed against psychotechnics agree especially on the desirability of selection of workers from the viewpoint of economy in factories. It is stated, and often with reason, that selection and orien-

tation ought to be used only for those kinds of work which demand quite special attitudes and for those for which the apprenticeship is long, expensive, and dangerous (e.g., operators of rapid-transit vehicles); that exercise levels original differences of ability; and that the analysis of attitudes necessary for different types of work is rather too obscure and complex. The author has taken into consideration the problems of work analysis, with the aim of bettering the quality and the quantity of production. He studied especially the rhythm of the worker in relation to the rhythm of the machine, the modifications of machines for the convenience of workers, personal rhythms and possibilities of grouping workers in two or three rhythm types; individual and group work (the latter increases production in monotonous kinds of factory work); continuous work and work in series (the latter in most cases tends to increase production without injury to the individual); the relation between the speed of work and the quality of production—for the very simple kinds of work this increases with practice up to a certain point, beyond which increase in production runs contrary to the quality of the product, this divergence being found in all kinds of work of relative complexity.—*R. Calabresi* (Rome).

4973. Hersey, R. B. *Workers' emotions in shop and home; a study of individual workers from the psychological and physiological standpoint*. Philadelphia: Univ. Pennsylvania Press, 1932. Pp. xviii + 441. \$3.00.—A year's intensive study of changes in the emotional and industrial behavior of 12 men selected by their peers as representative normal workers, engaged as mechanics or helpers in a locomotive repair shop. A description of general set-up and environment is followed by ten chapters, each of which constitutes the detailed case study of one (or two) men, each illustrating some characteristic problem in adjustment; e.g., youth, low IQ, unhappy home life, fear of unemployment, monotony, influence of the foreman, etc. At intervals during the day each man was questioned concerning his feelings. The investigator became intimately acquainted with his subjects in their home life as well as in their shop work. Records of work performed, observations on reactions of subjects to major and minor crises in their lives and in occupational activities, the casual remarks and opinions expressed by other persons concerning the behavior of the subjects; these data and more were used in the collation of case-study material. Major outcomes of this investigation are two: (1) the need for more human contact between management and individual worker, a more comprehensive and sympathetic appreciation of the social and emotional problems which affect, either for better or for worse, the worker's productivity; and (2) the observation that emotional tone fluctuates with surprising consistency over a period of from 3 to 9 weeks, depending upon the individual. (Median period for a heterogeneous group of 20 cases was 5.00 weeks.) This periodicity is not greatly affected by immediate social factors; but it does in turn seem to affect productivity. Especially significant are the

final two chapters on "Recurrent emotional fluctuations in men" (35 pages), and "Inferences and suggestions" (27 pages). In the latter are discussed: the ideal plant environment (a congenial job; sound working conditions; security; satisfactory remuneration; justice, equality, and independence; understanding and efficient supervision; personality factors helpful to proper adjustment); the ideal extra-plant environment (cooperation and consideration in the family circle; ability to live within income; variety and change; sane and healthful recreation; satisfactory sex relationships); and the significance of emotional variability. There are appendices on: (1) problems and techniques; (2) results on nine psychological tests as applied to the 12 main subjects of the study; and (3) production statistics during high and low periods. Bibliography of 100 references.—*O. L. Harvey* (Boston).

4974. Kaufmann, O., & Markier, P. [Psychological analysis of the different aspects involved in the work of tea baling.] *Psikhotekn. i psikhofsiol. truda*, 1930, 3, 183-204.—As a result of an experiment in baling tea themselves, the authors conclude that the essential elements involved in the work are rapidity and coordination of movements and resistance to monotony. Certain measures dealing with these factors are proposed.—*A. B. Hunter* (Clark).

4975. Kruk, W. *Psikhoteknika doboru pracownikow komunikacji w Wiedniu*. (The psychotechnical selection of transport workers in Vienna.) *Psikhoteknika*, 1930, 4, 105-123.—The author gives a detailed description of the tests used in the selection of transport workers in Vienna; these include those used in the municipal tramway laboratory where all the transport workers for Vienna are selected and those used in the laboratory belonging to the railroads which serve the greater part of Austria. The workers in the transport field are divided into three categories, and each category is tested collectively and individually. The group tests are the same for all the workers in a given category, while the individual tests vary according to the subdivisions of each group.—*A. B. Hunter* (Clark).

4976. Lipmann, O. *Zur Methodik von Untersuchungen über die praktische Bedeutung von Eigenschaftsfeststellungen*. (Concerning the methods of investigation of the practical significance of aptitude determination.) *Zsch. f. angew. Psychol.*, 1932, 42, 273-284.—The problem arises as to what extent the discovery of vocational aptitude is indicative of vocational efficiency. The author gives a series of factors for investigation to help in discovering what relationship may exist between these two, seeking to determine what factors give highest correlation between aptitude and efficiency. Five methods for arriving at conclusions in this field are surveyed, with discussion of misconceptions in interpretations by these methods.—*A. B. Herrig* (Michigan Central State Teachers College).

4977. Lipmann, O. *Eine Analyse von 5 Millionen Anfragen bei 163 Firmen auf Grund von 3500 Annoncen*. (An analysis of 5,000,000 inquiries, received by 163 firms from 3500 magazine and news-



paper advertisements.) *Zsch. f. angew. Psychol.*, 1932, 42, 357-366.—This is an abstract of Market Study No. 1 by Daniel Starch. In connection with replies that have been received from advertising, Starch has collected material since 1918 from 163 firms. Tabulation and statistical handling of this material is undertaken in order to find answers to a number of questions relative to advertising. Seventeen such questions are handled and the article gives data in tables throwing light on these questions.—A. B. Herrig (Michigan Central State Teachers College).

4978. Lovell, T. The value of industrial psychology. *Australasian J. Psychol.*, 1930, 8, 215-220.—The main two problems involved in the subject of industrial work are selection and vocational orientation and the question of fatigue. The author gives a brief survey of the efforts made to solve these questions in England by the National Institute of Psychology: reforms dealing with the movements made by workers, the methods of apprenticeship, the diminution of monotony in various occupations, the perfecting of materials used, the reforms in conditions of illumination, heating, ventilation, etc., the practice of alternation of periods of rest and work, the adaptation of workers to various tasks, etc. He gives the results obtained, expressing amelioration in terms of increase in output and diminution of waste.—A. B. Hunter (Clark).

4979. Myers, H. Human engineering. New York: Harper, 1932. Pp. 312. \$3.00.—The belief of the author that it is possible for industry to make successful people at the same time it makes successful products is reflected in the content of this volume. His "six laws of good work" together with suggestions for carrying them out are described in considerable detail. The relation of good health to the industry and to the individual is pointed out. A treatment of the relation of the supervisor to the worker is one of the main features.—E. H. Kemp (Clark).

4980. Page, R. M. Measuring human energy cost in industry. *Genet. Psychol. Monog.*, 1932, 11, 321-537.—Page presents no results of original investigation, but only a review of the literature in the field, together with a bibliography of 649 titles and one of "general reference books of most value in a bibliographic way." The following is an outline of topics covered: I. Physiological foundations. Theory of respiratory exchange determination; fatigue and energy cost; literature on fatigue measurement; general physiology; basal metabolism; general metabolic exchange and energy metabolism; respiratory physiology and blood chemistry in relation to muscular work; the biochemistry and dynamics of muscle action; the physiology of muscular work; the respiratory quotient; calorie computation; factors affecting metabolism; physiological factors subject to experimental control; mental work as a physiological factor; environmental factors affecting metabolism; general references on factors affecting metabolism. II. Apparatus and methods. General manuals on apparatus and methods; incidental and non-quantitative indexes of metabolic rate; direct calorimetry;

indirect calorimetry: open circuit methods, gasometer type; open circuit methods, Douglas bag type; the Waller simplification of the Douglas bag method; criticism and defense of Waller method; gas analysis under the Waller method; other simplified methods of gas analysis; other open circuit methods of metabolic rate determination; total pulmonary ventilation as an index of energy consumption in light work; closed circuit methods for determining oxygen consumption; closed circuit methods for determination of oxygen consumption and carbon dioxide output; graphical methods in respiratory exchange determination; breathing apparatus for respiratory exchange experiments; accessory apparatus in respiratory exchange experiments. III. Applications and results. Uses of respiratory exchange determination in industry; laboratory studies of the components of industrial work; energy cost of industrial occupations; energy cost of walking; the study of industrial working conditions; the effect of noisy working conditions; rest pauses; metabolic tests of physical efficiency.—M. V. Loudon (Pittsburgh).

4981. Pear, T. H. Voice and personality, as applied to radio broadcasting. New York: Wiley, 1931. Pp. 247. \$3.00.—The recent rapid advances of radio broadcasting, the popularity of sound films, and the development of electrical voice recording all tend to heighten the interest in the voice as an expression of personality. The author discusses: (1) the importance, characteristics, and types of voice; (2) the meaning of personality; (3) the art of listening; and (4) local peculiarities and prejudices of listeners as judges. Two experiments were conducted by the questionnaire method to test the ability of listeners (1) to visualize or otherwise imagine the characters and scenes of a radio drama; and (2) to determine age, sex, qualities of leadership, and locality of birth of 9 speakers (2 female and 7 male) ranging in age from 11 to 57 years. Results of experiment (1) indicate that 9 out of 110 failed to visualize the characters and scenes of the drama. Answers for experiment (2) were inconclusive except for the age and sex of the speakers. The latter third of the book contains supplementary impressions volunteered by the listeners. The author makes no analysis of these latter replies.—C. V. Hudgins (Clarke School).

4982. Piddington, R. Psychological tests for clerical workers. *Australasian J. Psychol.*, 1930, 8, 59-68.—The author reports a series of tests to be used in the selection of clerical workers: bookkeepers, typists, stenographers, and accountants. He discusses the work previously done by Link and Thurstone and then describes his own method. A series of tests was given to groups of professional workers, students, and school children from 14 to 16 years of age, and then the significant tests were selected according to the degree of correlation existing between the scores of the employees and the ratings given their work by their superiors. Comparisons were made for the three groups as to the average, median, deviation, and intercorrelations, while correlations were made between the professional ratings

of the group of workers and the scholastic ratings of the other two groups. It was found that certain tests were related to the aptitudes shown for a given work but not to the scholastic achievement. Only the following tests were finally retained: substitution, orthography, mixed numbers, free associations, lists of nouns used as answers for a series of problems, attention tests, and classification tests. Each test was given a coefficient value, and the whole group of tests was found to have a correlation of 0.65 for typists, 0.56 for stenographers, and 0.59 for clerical workers. Piddington suggests the use of intelligence tests in the selection of all employees, adding motor tests for typists and stenographers.—A. B. Hunter (Clark).

4983. Eyzanov, I., Astrakhan, E., Filippova, O., & Chernikova, O. [The methodology of measuring trade skill in pre-professional work.] *Pedagogiya*, 1930, 611-620.—The authors emphasize the importance of an acquisition of fundamental manual habits before beginning the practice of a trade, and they describe the methods used for the study of this problem by their institute. They studied the kind of manual operations performed by children and the errors usually found in the same kinds of work as performed by beginners. For this purpose, a scale of tests of skill was established and applied both to children and to adolescents. In the first place, tests of general ability were given: recognition of size, use of a ruler, capacity for reproducing geometric forms, etc. Then tests were given which involved the manipulation of objects made of wood, fabrics, and paper. The operations were all very simple, some of them requiring no tools at all, while others required only simple ones, such as crayons, scissors, rulers, knives, etc. All tools were rigidly standardized. So far two tests have been established for fabrics, four for wood, and eight for paper, with metal tests being now in process. Each kind of manual activity represented in these tests has had approximately 600 trials. The tests are collective, 15 to 20 subjects being included. Typical errors in the performance of the various kinds of work have been established, and the results are classified under five qualitative categories. Thus, technical defects can be discovered in children and then be eliminated by the teacher before they become habits. Furthermore, the individual manual profiles can be obtained. Data on the tests, on their application, and on the evaluations of results are given. Two charts representing the standardized results of certain tests are included in the article.—A. B. Hunter (Clark).

4984. Schnieder, E. *Empirisch-strukturpsychologische Untersuchungen über den Schauspieler*. (An empirical structure-psychology study of the actor.) *Zsch. f. angew. Psychol.*, 1932, 42, 285-356.—An effort is made to ascertain how the actor type holds true to the typology of E. R. Jaensch. The author sees advantages in the empirical study over the experimental. He was under-study in a theatrical company, which gave him opportunity for observation and questioning of twenty-four actors, both men and women, ranging in age from nineteen to sixty.

He discovers four theatrical types: the idealistic, the synesthetic, the hysterical, the comic. These he accurately describes, with their reactions to the theatrical situations—roles, gestures, masks, costumes, practice and performance, the management and the public. The author verifies his empirical studies by the methods of Weber, Thomas, and Leinweber, finding a close relationship between the two studies.—A. B. Herrig (Michigan Central State Teachers College).

4985. Viteles, M. S. *Industrial psychology*. New York: Norton, 1932. Pp. xviii + 652. \$4.25.—The first section of this volume is devoted to a discussion of the foundations of industrial psychology, including the economic, social, and psychological factors which have contributed to its development. It includes two chapters on individual differences. The second section is devoted to the study of occupational qualifications and to the development and application of techniques for their measurement as an aid in the scientific selection and placement of industrial personnel. Section III deals with problems arising in maintaining fitness at work. Chapters on the place of psychology in promoting the safety of industrial personnel are followed by a detailed consideration of psychological problems in training workers. The general phases of this development are not treated in detail here, but there is a comprehensive survey of the contributions which psychology has made to the solution of the practical problem of properly training workers in industry. Other chapters are devoted to a consideration of monotony, fatigue, and the feelings and motivation of workers. Maladjustment as a general problem receives a chapter. The psychology of management closes the volume. The psychology of selling and advertising is not included here, principally because of its highly specialized nature, and because it is concerned more with group reactions. The orientation of this volume is not statistical, but rather clinical, placing its emphasis on the individual worker rather than on the group. The bias of the volume is predominantly experimental. Much care and attention have been devoted to the work which has been and is being done by European psychologists in this field. The book is of use to advanced students of applied psychology; to teachers of psychology, sociology, economics, industrial management, and allied subjects; and to executives in industry. An exceedingly comprehensive index of names and an equally comprehensive subject index are provided. Bibliographical references are provided as footnotes only. About 100 illustrations and photographs are included in the volume.—O. L. Harvey (Boston, Mass.).

4986. Voronov, N. N. [Psychotechnical examinations of students in a preparatory building trade course in the Kiev section of the Central Institute of Labor.] *Psikhotekn. i psikhosistok. truda*, 1930, 3, 143-171.—The local section of the Central Institute of Labor at Kiev organized a course for training in the building trade, and the psychotechnical department at the university was asked to arrange tests for selection of apprentices. Written tests were not used,



since the education of the candidates varied greatly. The tests were organized into four groups. I. Orientation in space and absence of vertigo: the subjects had to mount an aerial bridge suspended at the height of 2½ meters, and to indicate the horizontal and vertical directions on papers fastened obliquely on a wall while in a motionless position and while balancing themselves in a swing. II. Ability to comprehend simple orders and to execute them quickly: the subjects had to arrange bricks rapidly in a rectangle, to arrange them according to a simple pattern, to fit together the two halves of bricks from a pile of bricks broken into irregular halves, to count bricks by lifting them one by one from a pile, to do the latter task to a given rhythm, and to toss bricks to their neighbors. III. Appreciation of spatial relations of objects: the subjects had to indicate the horizontal and vertical directions on a wall, to appreciate the small inequalities on the surface of a wall (reliefs and depressions), to reproduce angles by means of compasses, and to put together the parts of a cone (test for patience). IV. Accuracy of manual skill: the subjects had to hammer nails which were only lightly driven into a plank and which were so arranged that a non-vertical blow would either drive them crooked or send them flying out of position; and to fold steel wires so as to copy the dimensions of a model. The results of all the tests were expressed in scores on a scale ranging from 4 to 10 according to the assumed value of the test, and the rating of a subject was determined by his percentage of the maximal score obtainable. At the end of the two months' course the students were classified into eight groups according to the ratings of their instructors, and then a comparison was made between this rating and their psychotechnical score. It was found that 110 of them, who had been placed in the highest two training groups, had scores ranging from 51 to 99; 75, who were in the next two groups, had scores from 32 to 70 (only 6 being 40 or lower); 14 of 28 students who had been dismissed by the instructors from the course ranged from 32 to 42; the other 14 ranged from 6 to 31.—A. B. Hunter (Clark).

4987. Walther, L. Die Anpassung der Arbeitsgeräte an den Arbeitenden. (Adaptability of work material to the workman.) *Psychol. Rundschau*, 1932, 4, 86-92.—A field for statistical investigation lies in the study of the relationship of material, utensils, etc., to the physical and psychological nature of the worker. The article discusses the problem from three standpoints: the body, tools, and the machine. All these require thought and scientific study to bring best results with the least fatigue to the worker.—A. B. Herrig (Michigan Central State Teachers College).

4988. Walther, L. Die Arbeitspsychologie. (The psychology of work.) *Psychol. Rundschau*, 1932, 4, 93-96.—This concluding article on work psychology deals with the problem of fatigue, and emphasizes the need of short pauses that are suited to the needs of individual workers at the close of work periods. It gives results of surveys to show that greater output can be attained by attention to this factor.—A.

B. Herrig (Michigan Central State Teachers College).

[See also abstracts 4702, 4774, 4849, 4873.]

#### CHILDHOOD AND ADOLESCENCE

4989. Adler, A. Ein Fall von Enuresis diurna. (A case of diurnal enuresis.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 471-478.—Verbatim report of conversations with a twelve-year-old boy and his mother in a clinic. The boy presented a case of daytime enuresis and soiling. The critical comments on the case report and aside remarks during the conversations present Adler's views on the genesis of the difficulty and therapeutic treatment. Fear of inadequacy and desire for attention are given as the psychological causes, together with the possible supplementary influence of some organic inferiority. Only the psychological causes require consideration in treatment. The development of self-confidence automatically eliminates the undesirable traits.—O. N. de Weerd (Beloit).

4990. Atzeni Tedesco, P. Ricerche dinamometriche sui giovani Cagliariitani dai 12 ai 19 anni. (Dynamometric studies of young people of Cagliari between the ages of 12 and 19 years.) *Atti della Soc. fra i cultori delle sci. med. e nat. in Cagliari*, 1931, 4, 163-170.—The muscular power of the individuals studied was directly proportional to their age. The values were higher in those of the asthenic type between the ages of 12 and 15 years, and in those of the pyknic type between the ages of 15 and 19 years. Those of the athletic type have always given intermediate values. There is no correlation between height and muscular power; there is a slight correlation with the weight of the body, the width of the hand, and the circumferences of the fore-arm, the thigh, and the leg. The frequency of the dynamometric values in the asthenics between 12 and 15 years probably has a relation to precocity of development.—R. Calabresi (Rome).

4991. Bader, H., & Fritz, V. Das Geschwister des schwererziehbaren Kindes. (The siblings of the child difficult to train.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 499-502.—In families of four or more children, the age order of the children may be important at any point. Siblings tend to pair off in special relationships and to influence each other reciprocally in such pairs. The common result is that one, usually the older, develops a passive disposition; the other, an active, often jealous, aggressive attitude. Either child, because of these traits, may become a problem case. Frequently the aggressive, boisterous child of a pair is brought to the clinic as a disturbing element, when the passive "well-behaved" child is potentially the more serious problem case. In such reciprocal pairs the disturbing behavior of the one, whether passive or aggressive, is defensive against the favorable attention gained by the other. Successful corrective treatment of one is therefore likely temporarily to develop unfavorable social behavior traits in the other.—O. N. de Weerd (Beloit).

4992. Blackfan, K. D. [Ed.] Growth and development of the child. IV. Appraisalment of the child.



New York: Century, 1932. Pp. xix + 344. \$2.75.—Each of the two parts of this book, *Mental Status* and *Physical Status*, represents the consensus of expert opinion upon the subject, with suggestions of fields needing further investigation. It appears to the committee that a careful study of a relatively small number of individuals, continued over a period of years, is the most promising method of attack upon the majority of unanswered questions. There is a description and evaluation of the leading intelligence tests, and also of personality tests. The latter are for the most part inadequate. Intellectually superior children are products of heredity, but nature and personality determine the extent to which they achieve. Failure is not due to deterioration of intelligence. They are at present neglected, and require improved methods of training. Mental development may be materially enriched and accelerated by effective methods of instruction. The normal course of development of motor skills, of language, and of social behavior is charted. Parental education and training are necessary to promote satisfactory emotional and habit control in the child. This education may be regarded as a branch of preventive medicine, and a task for the physician, as is also the problem of sexual guidance. There is a small positive relationship between intelligence and physical measurements. "Reliable appraisal of physical status demands that the items on which dependence is placed shall be valid measures of relative physical fitness; that the measurements be as objective as possible; that the results obtained shall be capable of repetition in identical circumstances; that the nature of the measurement be such that fluctuations from the standard are of proven significance; and that the standard or norm shall be applicable to the individual, not just an average from a physically heterogeneous group." The roentgenographic appraisal of developmental growth in the skeleton is outlined, differentiated by half year intervals. Experiments have shown that objective measures of subcutaneous tissue and muscle can be developed, and that general physical fitness is positively correlated with relative vital capacity. The function of a group or school health service is to educate, to protect from contagion, to discover fitness for school routine, and to discover defects; but at no time does it take the place of the clinical examination. Great emphasis is placed upon the necessity of complete, systematic, serial assessment of the individual healthy child.—*M. P. Montgomery* (Faribault, Minn.).

4993. Busemann, A. Berufswahl und Geschwisterzahl. (Choice of a profession as related to the number of brothers and sisters in a family.) *Zsch. f. päd. Psychol.*, 1930, 31, 559-564.—Busemann questioned 169 children in an intermediate school as to their choice of profession. 18 subjects chose their fathers' professions and 29 chose professions which were decidedly higher in the social scale. He notes that the children who chose higher ranking professions usually belonged to a relatively large family (56% coming from families having more than two children), while only 22% of those choosing their fathers' professions came from large families. The

difference was not confined to any one social level. He concludes that the presence of several brothers and sisters acts as a stimulant, and he explains the mechanism of this influence in terms similar to those used by Adler.—*A. B. Hunter* (Clark).

4994. Challman, R. C. Factors influencing friendships among preschool children. *Child Development*, 1932, 3, 146-158.—"A study was made of the factors in addition to propinquity that influence the formation of friendships among preschool children. 33 nursery school children, 17 boys and 16 girls, ranging in age from 27 to 59 months, were used as subjects. The method was the observation of groups, the number of times each child was with every other child being used as the criterion for strength of friendship. The items selected for study were likeness in sex and similarities in C.A., M.A., I.Q., height, attractiveness of personality [ratings by adults], and degrees of extroversion [Marston scale], sociality, physical activity, laughter, and social participation [observational studies]. The following results were obtained: Boys have a slight tendency to form stronger friendships with other boys as they grow older. There is a marked cleavage in friendships on the basis of sex, children of each sex tending to form friendships within their own sex. Similarities in C.A., sociality, and physical activity have an influence in the order given on the friendships of boys with boys. Similarities in social participation, C.A., sociality and possibly physical activity influence the formation of friendships between girls in the order named."—*F. D. McTeer* (Detroit City College).

4995. Claparède, E. Das Bewusstsein der Ähnlichkeit und der Verschiedenheit beim Kinde. (The consciousness of similarity and dissimilarity in the child.) *Psychol. Rundschau*, 1932, 4, 60-65.—The question is considered as to whether consciousness of similarity or of dissimilarity comes first in the mental development of the human being. The author observes that the child's consciousness of likeness appears later than his adaptation to it. He comments on the law that the earlier and the longer an automatic reaction appears, the longer will conscious reaction of it be delayed. Consciousness of a condition arises when habitual reaction fails. The child's early reactions are few and to wholes, later to individual characteristics, namely differences. Thus differences would come into consciousness earlier than the similarities to which reactions have become automatic. This conclusion is in contrast with the usual belief relative to the consciousness of similarity and dissimilarity.—*A. B. Herrig* (Michigan Central State Teachers College).

4996. Coteleasa, M. La motilità riflessa del neonato e del lattante. (The reflex motility of the new-born and the nursing.) *Lattante*, 1931, 9-10, 707-737; 761-790.—After touching upon the development of the nervous system in the new-born, the author examines the reflex motility at that age. The reflexes common to the new-born (i.e., abdominal, cremasteric, knee jerk, Achillean, pupillary, oculo-cardiac, vaso-motor) are examined separately. The author makes a personal casuistic contribution relative to the reflexes in the new-born and in the nurs-

ling during the first year of life.—R. Calabresi (Rome).

4997. Courtis, S. A. Criteria for determining equality of groups. *School & Soc.*, 1932, 35, 874-878.—The author believes that the usual pairing procedure used in the selection of parallel groups does not equate these effectively. He contends that ideally the individuals in the groups should be matched on the basis of their growth constants. In the absence of information regarding these constants the following procedure is recommended: Give a series of tests separated by intervals sufficient to permit real growth in all subjects. Match pairs on achievement in Test 2 and on growth from Test 2 to Test 3. Predict the scores on Test 4. If the computed and predicted scores agree essentially, the two groups may be considered equated and the experimental factor may be introduced in one of them. The isochron should be the unit of measurement.—H. L. Koch (Chicago).

4998. Descoeurdes, A. Was wir den zurückgebliebenen Kindern zu danken haben. (The debt of gratitude we owe the retarded child.) *Psychol. Rundschau*, 1932, 4, 54-60.—The author holds that the retarded types hold an important place in life, making a contribution quite distinct from the higher intelligences in the way of faithfulness, modesty and virtue. The recognition of these types has led the educator to a new child psychology and consequent pedagogy, bringing to the child a greater joy in learning, substituting reality of experience for mere verbalism.—A. B. Horrig (Michigan Central State Teachers College).

4999. Freund, H. Pseudonanias. (Pseudo-onanism.) *Int. Zsch. f. Indiv.-psychol.*, 1932, 10, 289-290.—Discussion of a case of a five-year-old boy who practiced onanism in bed by a movement of the entire body, never using his hands. Freund holds that the boy developed an interest in the movement at a time when he was bandaged over the entire body during treatment for eczema—that sex interest was secondary. Of more significance were the attitudes of the foster-parents—discouragement and helplessness. The child apparently enjoyed the attention he was receiving and the disturbance which he created.—O. N. de Weerdt (Beloit).

5000. Friedmann, A. Kenne ich mein Kind? (Do I know my child?) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 532-536.—The author groups under two headings the typical adjustment problems met with in children, and gives suggestions as to basic causes and corrective measures. Part I gives the basis for personality development: environmental conditions in the home with reference to the attitudes of parents, guardians, brothers, sisters, etc.; the character of the home training, whether loveless, careless, over-indulgent, etc. Part II discusses the degree of preparation for coping with life: in the home (indications of lack of self-dependence in conforming to acceptable social standards); work, school, career (indications of repression and discouragement); sociability and friendships (indicating under-development of social adjustability); attitudes toward the sexes (indicating under-development of self-confidence); art, science, psychology (presenting prob-

lems of lack of self-confidence).—O. N. de Weerdt (Beloit).

5001. Gerard, E. I. Der Tod als Erlebnis bei Kindern und Jugendlichen. (The experience of death in childhood and youth.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 551-558.—A study made in New York by means of a questionnaire. Included among the 72 cases were 3 children under 14 years, 29 Barnard College students, a colored servant girl, 4 university professors. Fear of death, faith in eternal life, associations with death, such as the color black, suicidal thoughts, and the influence of religious backgrounds in the home, are among the problems touched upon. A conceptual quasi-statistical analysis.—O. N. de Weerdt (Beloit).

5002. Heller, T. Ueber dissoziale Ansartung Jugendlicher. (Delinquent degeneration of adolescents.) *Vjesh. f. Jugendk.*, 1931, 1, 234-247.—Many young people at puberty show symptoms which, for a time, parallel exactly those of schizophrenia, until eventually they take a decided turn for the better and thereafter develop normally. As Bleuler points out, every pubertal period has a certain schizoid cast. The schizoid personality develops when these peculiarities do not regress completely after puberty, but fasten on to the personality and give it a special stamp. An abnormal puberty by no means presages an abnormal adulthood. The author describes the symptomatology of the schizoid crises of puberty, with their negativism, reappearance of the instinctive drives of early childhood, the lack of will, or else compulsive activity, the vivid affectivity, and the distortion of the outside world. These symptoms are recognized by the adolescent himself as alien, and they frighten and torment him. He retreats into himself in the attempt to work out some kind of relationship to the world. Adolescent "degeneration" follows two directions: psychosis and delinquency. Some adolescents pass through a dissociated phase of more or less serious delinquency, and later right themselves completely. The author reports three such cases, pupils in his school of correctional education. He believes that dissociated delinquent acts represent an automatic (and often symbolic) abreaction of the emotional tension to which the adolescent has been subjected since childhood. They belong to the same category as accident and emancipation reactions. They arise from the subconscious, and break through all inhibitions. The character picture of these adolescents changes as soon as the path to success is cleared. All that an institution of educational therapy can do is to remove them to a favorable environment, give them opportunities to talk with experienced and understanding older friends, and help them to develop in the directions which they desire. Under these conditions, the adolescent himself can assume the task of eliminating the "psychic foreign body," which drops out without leaving a trace. The author advises against psychoanalysis, which interferes with this process of elimination by keeping painful experiences always in the foreground. This spontaneous activity of the adolescent should not be interfered with or inhibited in any way.—M. E. Morse (Catonsville, Md.).



5003. Holab, M. *Gespräche mit Eltern und Kindern*. (Conversations with parents and children.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 3, 441-458.—A series of conversations typical of those held in guidance counsels (Erziehungsberatungen) reported verbatim in order to show how a single interview may serve to uncover the causes of the asocial attitude which underlies the maladjustment of a child. Cases of enuresis, lack of initiative, and extreme timidity are presented.—O. N. de Weerdt (Beloit).

5004. Ilge, W. *Ein Fragebogen zur Erfassung der seelischen Struktur des Grundschulkindes*. (A questionnaire proposed for the study of the psychological structure of primary-school children.) *Zsch. f. päd. Psychol.*, 1930, 31, 97-106.—School teachers experience great difficulty in filling out the observation blanks required of them, for many of the questions asked cannot be covered by observations made during the class periods. In order to overcome this difficulty, Ilge proposes a questionnaire to be filled out by the pupil himself in regard to his tastes, desires, and habits, the responses being "yes," "often," "sometimes," and "no." The teacher should be able to determine individual traits of character by comparing a child's responses with the distribution of such responses in the class as a whole. Ilge gives a concrete example of such an interpretation based on the use of the proposed questionnaire.—A. B. Hunter (Clark).

5005. Irwin, O. C. *The latent time of the body startle in infants*. *Child Development*, 1932, 3, 104-107.—Body startle was recorded from a two-dimensional stabilimeter on a polygraph moving at a constant speed, which carried also a record of the time at which the startling stimulus was given. The mean latent period (the distance between these two kymograph records) of 163 body startles following a tone of 581 d.v. with a duration of .07 sec. made by 12 infants from 15 hours to 53 days old is .18 sec. with a probable error of .03 sec. and a range of .07 to .35 sec. There was little change in the mean latent time with either age or sex. It was observed that closing of the eyes often accompanied these body startles or was substituted for them; crying never accompanied them.—F. D. McTeer (Detroit City College).

5006. Irwin, O. C. *Infant responses to vertical movements*. *Child Development*, 1932, 3, 167-169.—When 21 infants under one month of age were dropped a distance of 2 feet 85 times, "no responses occurred in 12% of the trials, and various patterns of limb movements occurred in 88% of the trials. The most definite pattern was an extensor-flexor pattern which was present in 53% of the successful trials; crying occurred in only two instances." When 12 infants 2 to 33 days in age "were accelerated against gravity 45 times, no responses occurred in 22% of the trials, and various patterns of limb movements occurred in 78% of the trials. The extensor-flexor pattern was not as striking as under the first set of conditions; no crying occurred."—F. D. McTeer (Detroit City College).

5007. Isaacs, S. *Some notes on the incidence of neurotic difficulties in young children. Part II*. *Brit. J. Educ. Psychol.*, 1932, 2, 184-195.—Gives il-

lustrations to accompany discussion, summary, and conclusions as presented in Part I. Consists of classified descriptive paragraphs and sentences from case studies.—K. M. Cowdery (Stanford).

5008. Jacobi, E. *Untersuchungen an verwahrlosten, geistig abnormen Mädchen*. (Studies of delinquent, mentally abnormal girls.) *Arch. f. Psychol.*, 94, 303-365.—A thorough study of 30 patients observed over a long period, some of them up to 20 years. 21 of the group were psychopathic, and of these, 15 were also decidedly feeble-minded. Jacobi classifies as psychopathic personalities both those who suffer from this abnormality and those from whose abnormality society suffers. In this study, the second type naturally predominates. In addition to the psychopathic personalities, some of the girls were psychotic, suffering from schizophrenia or brain syphilis. Jacobi tries to differentiate the rôles of constitution and environment. Hereditary factors were present in 80% (alcoholic psychoses, asociality, psychopathy, less often feeble-mindedness, very infrequently psychoses and epilepsy). Hereditary influence is greatest among the mentally defective, and very slight among the psychopaths. Environmental factors are much less common than constitutional. Characteristic of the latter are physical disease, poor school records, prostitution, "running around," delinquency, etc. The author studies thoroughly the occurrence of crime, venereal infections, pregnancies, alcoholism, and the influence of occupation. As to the last, hand-workers and servants predominated, while clerical workers and shop-girls accounted for only one-fifth. The age at which delinquency began varied between 14 and 25; about one-half the cases began between 14 and 16. The most prominent causes of the very frequent prostitution are hypersexuality and dislike of work. The prognosis in all the cases studied is unfavorable. The histories are given in full.—M. E. Morse (Catonsville, Md.).

5009. Jachner, D. *Die Phantasieschwester*. (An imaginary sister.) *Zsch. f. päd. Psychol.*, 1930, 31, 371-379.—The author gives an interesting account of a little girl of 3½ years of age who invented a "sister in Berlin" whose activities and achievements she would relate in detail. It seems that this mythomaniac manifestation originated in a feeling of inferiority. The child had a younger sister and a brother who were twins, but she seemed to think that they were related only to each other and that she herself had neither brother or sister at home.—A. B. Hunter (Clark).

5010. Justin, F. *A genetic study of laughter-provoking stimuli*. *Child Development*, 1932, 3, 114-136.—After an extensive review of the pertinent literature, 54 laughter-provoking situations were selected to illustrate the following theories of laughter: surprise or defeated expectation; superiority and degradation; incongruity and contrast; social communication; relief from strain; and play. Some of the stimuli used were actual situations in which the child participated; some were actual observed situations; some were presented pictorially and some verbally. The whole list was presented individually to twelve



boys and twelve girls at each yearly age level from 3 through 6 years. The results show "an increase in responsiveness to the fifth year and a decrease in the sixth. This trend is apparent in total response and in responses to the six main divisions devised to embody the various theories of laughter causation, both in mean seconds [of laughter] and in percentage of response to situations of the four age groups. [However,] despite this age increase and subsequent decrease, the percentage responses to the main divisions of situations do not markedly change their relative positions. Actual situations were the most effective at all age levels. At 3, 4 and 5 years, the verbal presentation was next in effectiveness; at the 6th year, pictorial presentation was more effective than the verbal. At all age levels, response to situations in which the child himself participated was greater than to those situations in which he did not participate." One may justly conclude that "the one thing that is always present that provokes laughter, to suppress which is to suppress laughter, a variation of which has an immediate effect on the intensity of the emotion of the ludicrous, is still to be found."—*F. D. McTeer* (Detroit City College).

5011. *Katz, D. Gespräche mit Kindern.* (Conversations with children.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 459-470.—Verbatim reports and critical discussions of selected conversations of parents with children. The aim of the conversations is to teach the child to regard his own conduct and adjustments objectively and reasonably, thus avoiding the development of harmful conflicts. Katz holds that when properly conducted such discussions do not arouse egocentric tendencies.—*O. N. de Weerd* (Beloit).

5012. *Koch, A. F.* [The correlation of indices of intellectual and motor skill in adolescents.] *Pedagogia*, 1930, 65-80.—The author studied the results of a series of mental and psychomotor tests given to 655 adolescents of both sexes, aged 16 to 17, for use in vocational guidance. He considers that the material gathered does not warrant the making of definite conclusions, though temporary ones can be drawn. The frequency curves show only a slight dispersion for motor skill, a condition which is mainly due, according to the author, to the influence of intellectualistic scholastic instruction which is a hindrance to motor training. A comparative study of the indices for information, general skill, and professional aptitudes seems to show the dependence of these three capacities upon general instruction. A comparison of the correlation coefficients discloses a very weak connection, during the adolescent period, between general skill and motor ability, and between different motor elements. This may be due to an insufficient integration of the different functions in the behavior as a whole, this insufficiency being characteristic of adolescence.—*A. B. Hunter* (Clark).

5013. *Lee, M. A. M.* A study of emotional instability in nursery school children. *Child Development*, 1932, 3, 142-145.—Shifts of mood over a 3-minute period as expressed audibly or by facial expression were recorded on a graph cross-ruled for 15-second intervals and for a 7-point scale of mood

level. Three observers collected 995 such observations on 18 nursery school children between 2 and 3 years old. These records, scored as to total number of times a shift occurred from one to another scale division of mood, and also as to the algebraic sum of average feeling tones in each quarter minute, indicate (1) that instability of mood and mood level are measurable characteristics of nursery school children, (2) that they are interrelated in the nursery school situation, (3) that they correlate more highly with mental than with physical age or health, and (4) that they tend to be affected in definite ways by environmental factors, such as day of week, adaptation to routine, presence of parent, etc.—*F. D. McTeer* (Detroit City College).

5014. *Löbl, H.* Die Entmutigung durch das Märchen. (Discouragement engendered by fairy tales.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 530-532.—The writer reviews some of Hauff's and Anderson's fairy tales, criticizing the content because of the gloomy, frightening pictures they present of the selfish perfidy of men and the harsh cruelty of life for the gentle and virtuous. Löbl urges that care be exercised in the selection of reading material for children.—*O. N. de Weerd* (Beloit).

5015. *Loosli-Usteri, M.* Psychologie und Kinderfürsorge. (Psychology and child welfare.) *Psychol. Rundschau*, 1932, 4, 65-67.—The need of a knowledge of psychology for those working in the child welfare field is emphasized; comments are made on the types of children who become objects of such care.—*A. B. Herrig* (Michigan Central State Teachers College).

5016. *Löwy, I.* Dummheit als Enthebungsmittel. (Stupidity as a means of escape.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 478-486.—Stupidity is accepted along with such traits as laziness as an escape from reality. Good descriptions and methods of treatment are presented of timid discouraged school children who were so repressed as to appear stupid. The factor of intelligence as basic to school and social adjustment is lightly considered in the manner typical of the Adlerian movement.—*O. N. de Weerd* (Beloit).

5017. *Melli, R.* Wie die Kinder sehen. (How children observe.) *Psychol. Rundschau*, 1932, 4, 71-76.—The author raises the question as to the difference that exists between the way the child sees things and the way the adult sees them. He quotes Claparède in his discovery that the child does not at first see details, but sees wholes, and later differentiates details. This is a direct contrast to older beliefs, especially to the association psychology. Study of animals shows the same tendency to observe and to react to wholes. The author shows why this procedure from undifferentiated wholes to details is reasonable.—*A. B. Herrig* (Michigan Central State Teachers College).

5018. *Pyles, M. E.* Verbalization as a factor in learning. *Child Development*, 1932, 3, 108-113.—Comparisons were made of the learning scores of 80 children between the ages of 2 and 7 years on three series of problems of a multiple-choice type. The stimulus objects used for the three series included

animal shapes, unnamed three-dimensional nonsense forms, and a similar series of forms with nonsense names. The object of the learning was to choose at once out of five forms the one inside of which a small toy was concealed; learning continued until the child's first choice was correct in four successive trials. No more than 25 trials took place in one day: if necessary the learning was continued on the following days but with the previously correct objects omitted; hence, learning was not continued beyond 100 trials. Verbalization was encouraged through questions from the experimenter as to where the toy was found. "When the three modes of procedure were compared, eliminating practice effect by rotation in matched groups, the median number of trials on the animal series was found to be 4, on the name series 7.5, and on the unnamed series 16.5. Data on complete failures and on the percentage succeeding in a given number of trials, are [also] in support of the conclusion . . . that verbalization served as a distinct aid in learning."—F. D. McTeer (Detroit City College).

5019. Ray, W. S. A preliminary report on a study of fetal conditioning. *Child Development*, 1932, 3, 175-177.—Fetal movements were recorded on a kymograph by the use of tambours fastened with adhesive tape diaphragm side down to the mother's abdomen. A loud noise produced marked fetal reactions in the one case studied. An attempt was made to condition the kicks so stimulated to a vibration against the maternal abdomen.—F. D. McTeer (Detroit City College).

5020. Ruellius, A. Arbeitsversuche an Hilfsschülern. (Studies on the work of retarded children.) *Jenaer Beitr. z. Jugend- u. Entwicklungspsychol.*, 1929, No. 11, 1-46.—A comparison was made of the work done by children from ordinary schools and by others from schools for retarded children. Two kinds of tests for manual skill were used. The first consisted in the children's making folded paper cups after being given a practical demonstration. Aid was finally given if necessary. This task was repeated without modification from time to time. The second test consisted in reproducing by means of pliers and wire a series of models which were of different size and form. This task varied from time to time, although the general type of problem always remained the same. The retarded children were less successful in the first test than the normal children, but their improvement went on at an equal pace. However, in the second test, although they were at first as skilful or even superior in skill, they made little or no progress, and their variability was definitely greater.—A. B. Hunter (Clark).

5021. Seidler, R. Die Erfassung der Schülerpersönlichkeit. (Understanding the personality of the school child.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 522-529.—Presents the thesis that the child enters upon his school career with a background of personal attitudes toward set tasks, as contrasted with spontaneous play, and also toward the social controls of those about him. Each child therefore experiences the demands of the various school situations in a manner peculiar to his own already developed individ-

uality. Suggestions are offered with concrete examples from cases on how the teacher may ascertain these individual attitudes of her charges through essays on such topics as, "What I have wanted to do, or become."—O. N. de Weerd (Beloit).

5022. Shinn, A. V. A study of sleep habits of two groups of preschool children, one in Hawaii and one on the mainland. *Child Development*, 1932, 3, 159-166.—Records of the day and night sleep of 30 nursery school children at Vassar College were kept by nursery school teachers and parents. Similar records were kept for 136 nursery school and kindergarten children in Honolulu. The children at Vassar for the same age range take longer naps, and require longer to get to sleep at night; the Hawaiian children go to sleep more quickly and sleep longer at night. "The correlation between total sleep and mental age shows a slight tendency toward an inverse relationship between mental age and total sleep, which may have been a factor in causing shorter sleep for the superior Vassar group. The rhythm of sleep is indicated by a line that fluctuates daily up and down, showing a tendency for long sleep one day to be followed by short sleep the next. Relative humidity and temperature do not seem to have influenced the amount of total sleep."—F. D. McTeer (Detroit City College).

5023. Smith, M. E. The preschool child's use of criticism. *Child Development*, 1932, 3, 137-141.—"A study of 325 criticisms made by children from 2 to 6 years old showed four types of unfavorable criticisms made: interference with self or possessions, failure to conform to wishes or social usage, lack of knowledge or skill, and undesirable personal traits. At first criticism was directed to another than the person concerned, apparently for the purpose of securing help in a difficult situation, and partook of the nature of tattling. A significantly greater proportion of criticisms was made at 5 than at 3 years old, directly to the person criticized. Most of the criticisms made by children were made primarily because of the effect on the speaker of the action criticized, but the percentage of such criticisms lessened significantly from 3 to 5 years. A series of 100 criticisms made by adults showed a significant increase in the proportion of criticism of personal traits, of dress, of failure to conform, and of favorable criticisms, with a significant decrease of criticism of lack of knowledge and of interference. But there was no significant difference in the amount of criticism directed to the person criticized; that made to another, however, was of the nature of 'talking behind their backs' rather than of tattling. . . . At every age the unfavorable criticism greatly exceeded the favorable."—F. D. McTeer (Detroit City College).

5024. Sommer, A. T. The effect of group training in the correction of articulatory defects in preschool children. *Child Development*, 1932, 3, 91-103.—A group of 14 nursery school and kindergarten children (ages 26 to 67 months) all of whom had three or more speech defects (according to the ratings of two listeners on an adaptation of the Blanton-Stinchfield articulation test) were paired with a



control group on the basis of speech defects, age, intelligence, school attendance, and education and occupational status of parents. After the experimental group had been given corrective work by a trained speech teacher fifteen minutes daily for twelve weeks, a repetition of the articulation test showed for the control group an improvement of 28%, for the trained group 57%. Sex differences were slight but apparently favored the girls.—*F. D. McTeer* (Detroit City College).

5025. Sumpf, E. *Wesen und Wege der älteren unter Geschwistern oder anderen Vergleichspartnern.* (Personalities and behavior traits of the older of pairs of siblings or other partners.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 486-498.—Three cases of the elder in pairs of siblings and two cases of jealousy in animals. The latter are analyzed in a frankly anthropomorphic manner with the typical individual-psychological conceptions. The typical jealousies of the older or first individual are always aroused through the influence of a third or relating personage (*Beziehungsperson*), and this individual and his attitudes must always be taken into account in corrective work. The subject himself should be drawn into conscious participation in the corrective process in so far as he is capable of objectively considering the situation.—*O. N. de Weerd* (Beloit).

5026. Vance, T. F. Food selections of nursery school children. *Child Development*, 1932, 3, 169-175.—Detailed tables of food selections are given on the basis of the observation by nursery school teachers of 44 children at an average of 25 meals each, and the recording of the main course food tasted first and that finished first. Meats, apples, sandwiches, fish, and eggs seem to have preference, as do broiled and raw foods in contrast to soups and creamed dishes.—*F. D. McTeer* (Detroit City College).

5027. Walcott, E. *Daydreamers: a study of their adjustment in adolescence.* *Smith Coll. Stud. Social Work*, 1932, 2, 283-335.—17 children, described as seclusive and day-dreaming, were studied from two to eight years after they had been patients at the Institute for Juvenile Research in Chicago. Each case is presented in detail. The author concludes that the prognosis for resolving their emotional difficulties is favorable only when the child has some source of affection within his family.—*H. Lange* (New Hampshire State Hospital).

5028. Weiss, G. *Ein Arbeitsversuch an Fürsorge-söglingen.* (A study on the activities of charity school children.) *Zsch. f. Kinderforsch.*, 1929, 36, 83-127.—The author, who is a student of Peters at Jena, studied the activities of the following groups of children: 17 abnormal children who exhibited volitional or affective disturbances, a group of asocial children with or without pronounced sexuality and with a tendency to destroy, a group having periodic oscillations, and a group able to adapt themselves to communal life. She determined their intelligence levels, which were found to be more or less retarded, observed them freely, and studied their capacity to work under different conditions. Thus she acquired precise information concerning each child and was

able to place him individually under the most favorable work conditions.—*A. B. Hunter* (Clark).

5029. Zanker, A. *Kinderhellkunde und Individual-psychologie.* (Pediatrics and individual-psychology.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 502-518.—Report on an analysis of 150 cases of children who were out-patients of a children's hospital. Classification according to mental behavior disturbances showed that in the preschool group traits of aggression, ranging from simple negativism to violent outbursts of temper, are most common. These are usually coupled with nightmares, bed-wetting, and other forms of so-called "weak nerves." In the second group—the school child group—one-fourth of the cases show various learning difficulties in school; the next largest category of cases shows bed-wetting as a symptom. Other symptoms are headaches, vomiting, neuralgia, restlessness in sleep, and various anti-social behavior traits. These traits or symptoms do not tend to appear as isolated phenomena, but are expressed in various combinations together or in sequences. The third or prepubertal age shows anti-social behavior growing more marked, even to vagabondage, and sex conflicts become frequent. As age increases it becomes more difficult to find expressions peculiarly characteristic of either individuals or age groups. This analysis is followed by a discussion of the practical problems involved in grouping the cases from the viewpoint as to whether somatic or psychic factors are the sole bases for the disturbances or form merely the predominant influences in mixed cases. Illustrative cases are presented.—*O. N. de Weerd* (Beloit).

5030. Zerov, V. [The evolution of written language in primary school children.] *Pedagogiya*, 1930, 683-697.—The author made a statistical study of the compositions of students in four primary schools in Novozybkov, Russia. The composition subjects were the same for all the classes, though there was added a free composition for each class. The time allowed for each composition was 50 minutes. 570 compositions written by children from 8 to 13 years of age were obtained. Zerov found a marked preference in all the children for verbs and substantives at the expense of adjectives. The percentage of personal and possessive pronouns and of verbs tended to decrease as a function of age. This decrease for verbs took place at the expense of the use of the present tense, the use of the future tending to increase, while that of the past remained stationary. The high percentage of substantives and verbs revealed the "activism" and the concrete character of the children's thinking. The paucity of adjectives was a proof of the weakness of their power of qualitative analysis. The high percentage of personal and possessive pronouns of the first person was an index of the subjectivism to be expected with the age. The evolution observed in the use of verb tenses showed that the child was ceasing to live only in the present and that the future was beginning to occupy a more important place in his mental attitude. The syntax did not differ essentially from that of adults, although there was a preponderance of simple propositions. The evolution in language development was shown



by a progressive complication in phase structure corresponding to an increasing awareness of more complex situations and relationships. Influences of sex were practically imperceptible. Of more importance was the social environment, for the author found different developments in children of different social classes. In conclusion the author emphasizes the pedagogical bearings of the following factors: The subject of the composition exercises a great influence on the language used. Certain subjects seem to inhibit or retard the evolution of verbal thinking. A decided preponderance of the use of temporal relations over that of spatial relations is shown. The young student narrates facts that follow each other in time, while description and reasoning are rare and of an accidental character.—A. B. Hunter (Clark). [See also abstracts 4689, 4705, 4847, 4897, 4900, 4917, 4925, 4947, 4954, 5050, 5053, 5076.]

## EDUCATIONAL PSYCHOLOGY

5031. [Anon.] Report of researches in education. *Brit. J. Educ. Psychol.*, 1932, 2, 221-227.—This committee report lists by institutions under fifteen topical headings the psychological researches in progress in Great Britain which are of particular interest to educationists.—K. M. Cowdery (Stanford).

5032. Bailej, S. Uwagi w sprawie programu działalności psychologów szkolnych. (Some observations on the activity program of educational psychologists.) *Polskie Arch. Psychol.*, 1930, 4, 237-243.—The question of pedagogical psychology is of special interest in Poland at present, and the activities of Loteyko and the influence of the Adler school are emphasizing the practical applications of the science. Unfortunately, only the personal initiative of Polish *lycée* directors can be dependent upon for any results. As director of the Institute of Pedagogical Psychology at the University of Warsaw, Bailej has endeavored to coordinate the effects of these *lycée* directors. The minimum activities which he advocates at present are as follows: the pedagogical psychologist should limit his activities for the time being to the examination of children entering school, whose evolutionary development should be carefully followed; he should give advice to children leaving school regarding vocational guidance; and he should especially concern himself with the problems of difficult children throughout his entire school. Bailej recommends the use of group intelligence tests supplemented by special tests in memory, attention, and motor aptitudes, and the extensive application of results gained from individual tests. Two points are stressed: (1) a close, sympathetic relationship between the psychologist and the students based on mutual confidence; and (2) a close collaboration between the pedagogical psychologist and the teaching staff. Such work, Bailej believes, not only would be of great utilitarian value but would be of benefit to theoretical child psychology.—A. B. Hunter (Clark).

5033. Bonaventura, E. Il problema delle classi omogenee. (The problem of homogeneous classes.) *Vita scol.*, 1932, 3, 1-5.—The author thinks the advantages of homogeneous classes should be for the

better rather than the weaker pupils; and reports on the observations of Treves and Saffioti on the three groups (gifted, average, weak) which can be found among pupils in every class, and on the observations of Pende on brachytypes and tachytypes. Homogeneous classes should not have before them the goal of permitting the more gifted students to advance more rapidly than those of lower degree, but should make the curriculum bigger and broader and more adapted to the powers of the gifted, encourage in all pupils attitudes which call forth healthy emulation, and facilitate the conservation of discipline, which is seriously in danger when some of the students, because of lack of preparation, cannot follow the lesson with interest.—R. Calabresi (Rome).

5034. Bovet, P. Das "Haus der Kleinen." (The Maison des Petits.) *Psychol. Rundschau*, 1932, 4, 76-84.—The Rousseau Institute at Geneva has a Children's School which Bovet describes. He comments on the combination of eclecticism and originality in material and method. The school sees three steps in the development of the thought process: (1) manipulation without thought; (2) manipulation followed by thought; (3) thought preceding manipulation. The author tries to impart the spirit of living and learning in this school.—A. B. Herrig (Michigan Central State Teachers College).

5035. Burns, E. I. Achievement tests in Turkey. *School & Soc.*, 1932, 36, 175.—H. L. Koch (Chicago).

5036. Classen, W. Der Vorgang des "Stutzens" und seine pädagogische Bedeutung. (The state of being nonplussed and its pedagogical significance.) *Zsch. f. päd. Psychol.*, 1930, 31, 403-410.—The author discusses the feeling of astonishment experienced when, due to having read inattentively or to having carelessly followed a chain of ideas, we are suddenly brought up against something that we cannot immediately understand. The fact of being thus nonplussed should have a certain importance from the pedagogical point of view, since there is produced in these states of surprise a kind of compression of attention which is a useful form of mental gymnastics. Furthermore, we are trained to shun a superficial manner of reading. There is also a direct advantage to be gained in that the student is obliged to re-read the text, and thus his power of reflection is stimulated.—A. B. Hunter (Clark).

5037. Diaz, M. Nuovi esercizi scolastici. (New school exercises.) *Vita scol.*, 1932, 3, 5-9.—School tests are tests of culture and psychotechnical tests are tests of intelligence; one must admit the impossibility of measuring the degree of development of the intelligence independent of the culture absorbed, but it is necessary to distinguish school knowledge from extra-school knowledge. Psychotechnical tests should be introduced into the schools as exercises suitable for the development of the same attitudes which they should select; however, the tests chosen should be interesting to the pupils, and capable of objective application, scaling, and repetition in different forms. The author favors substitution, or at least the integration of school texts of culture with tests of knowledge, attitude, and intelligence.—R. Calabresi (Rome).

5038. Dolch, E. W. Testing word difficulty. *J. Educ. Res.*, 1932, 26, 22-27.—In testing word difficulty the author believes that it is often forgotten that one is testing words as well as children. This means that the conditions for each word tested must remain as constant as those under which each child is tested. The experiment was conducted with 40 children of grade VI. 70 words were presented to them in column, and they were asked to mark with a zero all words unknown and with a question mark all of which they were uncertain. Immediately afterwards the same words were presented in a multiple choice test. Although the agreement between the results of the two tests was small, the author points out that it is what one might expect due to the differences in method. It is pointed out that by using the multiple-choice test, the pupil is aided in unequal amounts for the different words.—S. W. Fernberger (Pennsylvania).

5039. Dottrens, R. Die Genfer Versuchsschule. (The experimental school at Geneva.) *Psychol. Rundschau*, 1932, 4, 85-86.—The article comments on the work of the experimental school in connection with the Rousseau Institute, especially as to its aims and its accomplishments.—A. B. Herzig (Michigan Central State Teachers College).

5040. Eulich, A. C. The significance of library reading among college students. *School & Soc.*, 1932, 36, 92-96.—About 300 students at the University of Minnesota who kept logs of their reading and study for one week furnished the data for the study. It was discovered that about one-fourth of the time the group devoted to reading was spent in the university library. No essential relationship seemed to exist in the group between the amount of time given to reading in the library and outside of it, or between these two variables and scholarship, intelligence or sex. Seniors tended to use the library more than did the juniors or sophomores. Using the library as opposed to not using it at all did correlate .31 with the honor-point ratio.—H. L. Koch (Chicago).

5041. Gray, W. S., Gray, W. L., & Tilton, J. W. The opportunity schools of South Carolina. New York: American Association for Adult Education, 1932. Pp. 141.—An experiment was carried on by the South Carolina State Department of Education, through the assistance of the American Association for Adult Education, to determine in adult opportunity schools the values derived, the learning problems encountered, and the nature of the progress made by different types of students who attend. The experiment was conducted with groups of white and colored adults of limited education who attended the opportunity school for one month. Tests were administered at the beginning and at the end. The average progress made in reading, writing, spelling and arithmetic by the beginning group was equivalent to 3.9 months of ordinary primary work by white students, and 3.4 months by negroes. The intermediate group made 7.5 months progress, and the advanced 9.5 months. The informal training in citizenship, general culture and religion, while not measurable was very significant, as shown by later contacts with

pupils. The conclusion is that the training received in opportunity schools is highly valuable and should be much more widely available. It can not, however, "make up in any spectacular way for what the public school system should have done."—M. P. Montgomery (Faribault, Minn.).

5042. Gupta, K. A few hints on the teaching of mathematics. *Indian J. Psychol.*, 1932, 7, 75-86.—The old teaching methods of India, in which rote memory without understanding or questioning was the usual thing, are criticized by this teacher, who suggests that a knowledge of the child is the first essential for correct and successful teaching. The curiosity of the child, his desire to experiment, his natural liking for asking questions, etc., may be used to advantage by the teacher who seeks to train the child to do things for himself. Children should never be told that mathematics is difficult or uninteresting.—E. H. Kemp (Clark).

5043. Herzog, E. Erziehungsmöglichkeiten in den öffentlichen Internaten. (Possibilities for child training in public boarding schools.) *Int. Zsch. f. Indiv.-psychol.*, 1932, 10, 290-303.—Such schools in Saxony offer an opportunity for academic preparation to those of limited means. Children from broken homes, orphans, and home problem cases are also among those attending. The schools are for the most part historically derived from three older types, teachers' seminaries, schools sponsored by principalities (originally cloister schools out of the times of the Reformation), and a limited number from boys' military academies. Herzog describes the administrative and supervisory organization of the schools, pointing out their particular weaknesses in regard to effective personality development of the pupils. Suggestions are made for effective organization of tutor-pupil relationships, socialization of student life, infirmary services, etc.—O. N. de Weerd (Beloit).

5044. Hoppe, J. Erziehung zur Gemeinschaft durch die Schule. (Training for sociality in school.) *Int. Zsch. f. Indiv.-psychol.*, 1930, 8, 519-522.—Report on methods and achievements in a "social" school (*Gemeinschaftsschule*) of a type organized in Hamburg and elsewhere since the war. Cooperation in common projects, dramas, entertainments, etc.; help for backward classmates by the better learners, and consideration for the opinions of others in class discussion are among the means and aims. Incidents are cited showing how the attitudes developed in the school room are transferred to extra-school situations.—O. N. de Weerd (Beloit).

5045. Hurd, A. W. Comparisons of short answer and multiple choice tests covering identical subject content. *J. Educ. Res.*, 1932, 26, 28-30.—Comparisons of several test forms given in 36 schools to 1423 pupils indicate differences in mean scores and in reliability.—S. W. Fernberger (Pennsylvania).

5046. Javoronkov, B. N. [The study of villages by secondary schools.] *Trudy II Univ. Moskva*, 1, 122-146.—Different schools of the U.S.S.R. have organized excursions for the children to villages where the students study social problems, question the peasants, and make various observations which they later analyze. The author discusses in detail the conclu-



sions of authors who have published such material.—*A. B. Hunter (Clark).*

5047. Kalachnikov, S. G. [A quantitative analysis of pedagogical activity.] *Trudy II Univ. Moskva*, 1, 29-42.—If the same test is given at the beginning and at the end of the period of apprenticeship, the progress of the pupil can be determined. The median of values thus obtained denotes the class progress for each subject studied for a given time. Using these figures and knowing the expense and the time consumed by both the students and the teacher, one can compute the indices of efficiency for various pedagogical methods.—*A. B. Hunter (Clark).*

5048. Kalnelson, S. S., & Brodovskaya, V. S. [The characteristics of children admitted to the first grade of manual training schools.] *Pedagogiya*, 1930, 350-368.—The authors made a medico-pedagogical study of 1045 children admitted to the first grade of 12 primary schools (504 boys and 541 girls). The ages varied from 7 to 10. The following matters were considered: the social situation of the children, the hereditary influences, the physical development, the state of health, the psychoneurological condition (vertigo, speech disturbances, the knee jerk, the pupillary reflex, the thyroid gland, and incontinence), and the intelligence level as measured by Rossolimo's abbreviated tests. The authors elaborated the statistics obtained, drawing the following conclusions: since the children entering the schools represent a heterogeneous group from the biological and social points of view, the composition of the first grade of the primary schools should be based entirely on a preliminary pedagogical investigation; after the age of seven, instruction should not be obligatory; all children of 7 years of age who desire to attend the school should be admitted; and special classes with individualized instruction should be created for retarded children.—*A. B. Hunter (Clark).*

5049. Kapuste, E. Individualpsychologie im Unterricht. (Individual psychology in teaching.) *Int. Zsch. f. Indiv.-psychol.*, 1932, 10, 312-313.—The lesson on Joseph and his brethren is used in religious education to show eight-year-old school children how personal relationships and problems among brothers and sisters and between parents and children develop. Moral precepts are avoided. The children are led to distinguish between false goals and real goals, and to evaluate achievements objectively in terms of usefulness for all concerned.—*O. N. de Weerd (Beloit).*

5050. Krause, P. Zum Problem der Schulreife. (A contribution to the problem of scholastic maturity.) *Zsch. f. päd. Psychol.*, 1930, 31, 278-302.—The author gave a series of intelligence tests to children entering the first year of primary school in 1921, 1923, and 1925, and he then followed their scholastic careers. Detailed tables are given of his results, of which the following are examples. 1921 entrants: 10 out of the 27 children tested continued their studies or entered language classes, and 7 of these were in the first ranks according to the tests passed at the age of 6, while the other 3 held ranks 11, 14, and 19. 1923 entrants: 7 out of 26 continued their supplementary studies and were among the highest 11 of their group. 1925 entrants: 9 out of 31 entered

classes in foreign languages and were among the upper 18 of their group. The failures were found to be grouped at the bottom of the psychotechnical list. 1921 entrants: 4 children who were obliged to enter special training classes ranked 23, 25, 26, and 27, while one child who was obliged to repeat two classes ranked 24. 1923 entrants: 3 children sent to a school for mentally retarded children had ranks 10, 17, and 26. 1925 entrants: a child sent to a school for retarded children ranked last in this group. The author is especially interested in determining the moment at which the child is old enough to be placed in the various classes. The solution, already proposed by a German writer, of determining entrance into classes by means of intelligence tests and not by chronological age, seems to the writer to be an improvement over the present system but not a complete solution of all the pedagogical, psychological, and social difficulties involved.—*A. B. Hunter (Clark).*

5051. Kwalwasser, J. Problems in public school music. New York: Witmark, 1932. Pp. 166. \$2.00.—*R. R. Willoughby (Clark).*

5052. MacRae, M., & Uhl, W. L. Types of errors and remedial work in the fundamental processes of algebra. *J. Educ. Res.*, 1932, 26, 12-21.—Data from 104 ninth-grade pupils in the East High School, Superior, Wisconsin. The children were divided into four groups with regard to IQ determined by the Otis Self-Administering Tests. An analysis of the errors indicates that those of multiplication and division were of most frequent occurrence. Other difficulties are noted.—*S. W. Fernberger (Pennsylvania).*

5053. McElwee, E. W. A comparison of the personality traits of 300 accelerated, normal, and retarded children. *J. Educ. Res.*, 1932, 26, 31-34.—A study was made of 300 children in Public School 208, Brooklyn, N. Y., divided into three equal groups of accelerated, normal, and retarded. In each case the teachers were asked to check a list of 14 characteristics, such as interest in school work, good effort, quietness, obedience, calmness, talkativeness, restlessness, stubbornness and listlessness. The results indicate that all three groups possessed more desirable than undesirable traits. In general, the accelerated children seemed to possess a greater degree of all the desirable traits than did the retarded children.—*S. W. Fernberger (Pennsylvania).*

5054. McNeely, J. H. Faculty inbreeding in land-grant colleges and universities. Washington, D. C.: U. S. Office of Education, 1932. Pamphlet No. 31. Pp. 25.—"The data were collected through questionnaires sent direct by the Office of Education to the institutions, where they were distributed to the staff members, filled out individually by them, and later returned to the office by the institutions. . . . The data do not represent the entire faculty of each institution." In some of the universities only a minor proportion of the faculties made returns. Of the 6,754 who reported on their undergraduate training, 21.6% secured all, 8.1% secured part, and 70.3% secured none of their undergraduate training at the institution where they were employed in 1927-28. Of the 5,910 who reported on their graduate train-



ing, 18.1% secured all, 18.9% secured part, and 63.0% secured none of their graduate training at the institution where they were employed. Of the 6,754 who reported on their entire training (both undergraduate and graduate), 11.7% secured all, 32.7% secured part, and 55.6% secured none of their training at the institution where they were employed. A comparison of seven major fields of teaching showed that engineering had the highest and home economics the lowest percentage of home-trained faculty members. Of the instructors, 59.1% obtained all or part of their entire training in their own institutions in contrast with 32.1% for professors. The median salaries of staff members who obtained all or part of their training in their own institutions were found to be from \$32 to \$285 higher than the median salary of those trained in other institutions in every academic rank except instructor.—A. K. Kurts (U. S. Civil Service Commission).

5055. Muchow, M. Zum Problem der Zeugnisreform. (On the problem of reform in scholastic reports.) *Zsch. f. päd. Psychol.*, 1930, 31, 222-233.—Among other efforts to adapt the instruction of children to present-day psychology in Germany has been included the question of revision of scholastic reports. Certain pedagogues advocate the elimination of grades, psychological portraits of the school children being used instead. Others demand the entire suppression of any method of grading. Muchow believes, however, that the parents and the children themselves require an evaluation of the work done by the pupils, and she advocates the conservation of some sort of method of estimating scholastic achievement, the schoolmaster to be at liberty to determine his own method of describing and analyzing the child's work. Such an analysis would, furthermore, indirectly furnish a psychological profile of the child. She also advocates the grouping of scholastic subjects according to their psychological relationship instead of according to their traditional division, which is pedagogically and psychologically unsound.—A. B. Hunter (Clark).

5056. Olander, H. T., & Sharp, E. P. Long division versus short division. *J. Educ. Res.*, 1932, 26, 6-11.—Study of the results from 1265 pupils from grades IV to XII inclusive in four different school systems. They were tested with an examination of 7 difficult examples, 5 of which had one-digit divisors. In another similar test of 10 problems, the pupils were asked to work 5 by long division and 5 by short division methods. From an examination of the results the authors conclude that 75% of the children chose to work difficult examples in division with one-digit divisors by the long division method, and that they used the long division method with greater accuracy.—S. W. Fernberger (Pennsylvania).

5057. Otis, A. S. Ability grouping. *School & Soc.*, 1932, 36, 116-118.—The author attempts a refutation of the arguments presented by another writer against ability grouping in the schools. Otis contends: (1) that the difficulty of administering a program involving ability is not insurmountable; (2) that the schemes employed in the classification

of pupils, while not perfect, do work fairly well and can be improved; (3) that where ability grouping prevails, the curriculum is almost automatically modified in keeping with the new arrangement; (4) that success in work at one's mental level is a good preparation for later living; (5) that ability groups are still sufficiently heterogeneous to be stimulating.—H. L. Koch (Chicago).

5058. Pavlov, F. K. [A study of the characteristics of adult instruction under the conditions of three historical epochs.] *Trudy II Univ. Moskva*, 1, 51-76.—The author examines briefly three types of propaganda of ideas among adults: the feudal type, the bourgeois-individualist type, and the Soviet type of instruction. He discusses their fundamental characteristics, their field of activity, their organization as to material, etc.—A. B. Hunter (Clark).

5059. Renwick, E. M. Children's misconceptions concerning the symbol for mathematical equality. *Brit. J. Educ. Psychol.*, 1932, 2, 173-183.—Tests are shown to objectify the commonly observed inability of ten- to twelve-year-old children to interpret as a unity a mathematical expression whose parts are connected by the sign of equality. To them it means an instruction to do the process preceding the sign in order to obtain the answer which should follow. When the word "equal" is introduced its meaning tends to become "same," and to be replaced indiscriminately by "alike," or it is used in connection with resemblances where neither degree nor quantity is involved.—K. M. Cowdery (Stanford).

5060. Seidler, E. Der Schüleraufsatz als Ausdruck der kindlichen Persönlichkeit. (School essays as expressions of the personality of the child.) *Int. Zsch. f. Individ.-psychol.*, 1932, 10, 304-311.—Seidler again presents her thesis that school essays can aid the teacher in understanding her pupils. Fundamental attitudes and trends can be deciphered. The writer reports an inability to develop a standardized objective method for the psychological analysis of such essays; and concedes that the social, economic, and familial environment of the child must also be carefully considered. Five essays from one child are presented in part as illustrative material.—O. N. de Weerdts (Beloit).

5061. Stokes, S. M., & Lehman, H. C. The relative importance of ability and industry as determiners of scholastic achievement. *Harvard Teach. Rec.*, 1932, 2, 117-123.—The writers contend that there is no general answer to this question and that it can be answered only for specific situations, with the nature of the measurements specified. In support of their contention, they show that three different measures of industry will produce three different answers to the problem. No fully valid measure of industry has been developed and the writers admit that their objective measure is faulty. Additional methods of measuring industry will probably secure still different results. Achievement may also be measured in different ways so as to stress either the fruits of industry or ability. In doing this the writers found they could alter their results at will so as to make first one or the other of industry and ability appear more important. The measure of ability used was an in-

telligence test, but it is pointed out that such measures of ability are not valid in determining ability in art or other of the less academic subjects. In the average college or university a good many "non-academic" courses contribute toward a student's scholarship average and true measures of ability and industry have not been devised for these. Consequently it is inaccurate to study this question by use of average marks. Methods of instruction may be made to favor either ability or industry with the consequence that what may be true in one instructor's classes may be untrue in another's. Finally it is suggested that the importance of ability varies inversely with the homogeneity of the student body while the importance of industry varies directly with the homogeneity of the student body—provided marks are given on a competitive basis.—S. M. Stoke (Mount Holyoke).

5062. Thompson, E. I. M. A study of the efficiency of "individual work." Part I. *Brit. J. Educ. Psychol.*, 1932, 2, 212-220.—When the Edinburgh infant department organized an individual work group ("curriculum centered") and a year later a "child centered" expression-type group, tests were given annually to compare the results with control classes taught in the "usual" way. Tests of intelligence, reading, spelling and arithmetic for three successive years show that the first experimental group starts with and fully maintains superiority over the control group used and in all of the tests.—K. M. Cowdery (Stanford).

5063. Warner, M. L. Meeting the problem of special children. *J. Abn. & Soc. Psychol.*, 1932, 26, 405-408.—Unstable feeble-minded children should be placed in custodial institutions. The stable feeble-minded can be cared for in special classes in the public schools. The group above the level of feeble-minded and below the average, and the unusually brilliant also should be provided with special classes, leaving the average children to progress normally.—C. H. Johnson (Boston Psychopathic Hospital).

5064. Whitlow, C. M. The prevalence of smoking and drinking among high school pupils. *School & Soc.*, 1932, 36, 177-178.—The results of the study are based on the returns from an anonymous questionnaire filled out by 750 students in a six-year high school in the Rocky Mountain region. Where a preliminary honesty test indicated lack of good faith in the responses, the returns were discarded. One-third of the boys and two-thirds of the girls said they never smoked. Three-fourths of the pupils indicated that they believed smoking to be harmful, while two-thirds were of the opinion that girls have as much right to smoke as do boys. Three-fourths of the boys and nine-tenths of the girls asserted that they never drank. It is considered that the influence of the school is negligible in relation to the practices of smoking and drinking.—H. L. Koch (Chicago).

[See also abstracts 4689, 4772, 4931, 5021, 5028, 5030, 5036.]

#### BIOMETRY AND STATISTICS

5065. Irwin, J. O. Mathematical theorems involved in the analysis of variance. *J. Roy. Statist. Ass.*, 1931, 94, 284-300.—(*Biol. Abst.* VI: 12602).

5066. Stevenson, P. H. Conversion of non-metric data to form suitable for statistical comparison. *Amer. J. Phys. Anthropol.*, 1931, 18, 91-96.—(*Biol. Abst.* VI: 12611).

5067. Studencki, S. M. W obronle sredniej arytmetycznej. (In defence of the arithmetical mean.) *Psichoteknika*, 1930, 4, 147-154.—The author's criticism is directed chiefly against the recent work of Macewicz. He believes that, if the use of the arithmetical mean did not give the results expected by the latter, the fault was due to a lack of homogeneity in the groups studied. He advocates the retention of the arithmetical mean, supplementing it by the average deviation or, for a large number of subjects, by the mode and the median.—A. B. Hunter (Clark).

5068. Wilks, S. S. The standard error of a tetrad in samples from a normal population of independent variables. *Proc. Nat. Acad. Sci.*, 1932, 18, 562-565.—The exact expression for the standard error of  $t_{1234}$  in samples from a normal population in which the inter-correlations of the four variables are zero is derived and found to be  $\sqrt{\frac{2(N-2)}{(N-1)^2}}$ . "The use

of the foregoing method for finding the exact value of the standard error of  $t_{1234}$  in samples from a general normal population of four variables leads to extremely complicated results which seem to defy simplification."—A. K. Kurts (U. S. Civil Service Commission).

5069. Wright, S. Statistical methods in biology. *J. Amer. Statist. Ass. (Suppl.)*, 1931, 26, 155-163.—A brief review of the fields of application of statistical methods to biology and a more detailed illustration of one of these: the interpretation of statistical descriptions in terms of causal relations. The method of path coefficients is used in the analysis of the rôles of heredity and environment as factors determining differences in intelligence quotient among children, using Burks' data from adopted children and own children. The results are contrasted with those of the method of multiple regression in obtaining a prediction equation.—(*Biol. Abst.* VI: 12618).

[See also abstract 4930.]

#### MENTAL TESTS

5070. Babcock, H. A note on the Pintner-Paterson performance scale. *J. Abn. & Soc. Psychol.*, 1932, 27, 63-64.—When foreigners who had usually been tested with only the short form of the Pintner-Paterson performance scale were tested with the long Terman scale, it was found that the performance scale tends to rate adults lower than does the Terman.—C. H. Johnson (Boston Psychopathic Hospital).

5071. Bonaventura, E. Prove d'intelligenza ed esercizi scolastici. (Intelligence tests and school exercises.) *Vita scol.*, 1932, 3, 1-5.—The author sees in certain intelligence tests (such as graphic narrations, tests of analogy or proportion, criticism of absurdities, etc.) very suitable exercises for the development of intelligence; and proposes that these exercises be introduced into the curriculum, with the



practical aim of mental development.—*R. Calabresi* (Rome).

5072. Bruckner, A. Ueber amerikanische Intelligenzforschungen. (American researches on intelligence.) *Vjsch. f. Jugendk.*, 1931, 1, 247-258.—Bruckner gives a brief outline and a critical review of Thorndike's *Measurement of Intelligence*. The greatest value of Thorndike's researches is that he has succeeded in bringing system into many of the hitherto confused aspects of intelligence measurement and has developed new methods which in many respects approach a clarification of the subject. Especially, through narrowing the total field of intelligence to the intellect CAVD, he has been able to devise a more rigid and exact method for the determination of degrees of difficulty in intellectual Aufgaben and to prepare the way for the construction of an absolute scale. For him, the intelligence problem is primarily one of Aufgaben, and from the results of these he builds up his theory. One should compare this method with W. Stern's in *The Intelligence of the Child and Adolescent*, in which the theory is taken up first, then the methods of examination, and finally the applications developed from it, i.e., the personalistic in contrast with the behavioristic attitude. Bruckner disagrees with Thorndike's assumption that a quantitative factor is the fundamental cause of differences in native intelligence. He believes that grades of intelligence are distinguished rather by qualitative differences in the original endowment of associative power. Stress on pure quantity of associations without regard to quality leads into the field of fantasy rather than that of intelligence. Furthermore, non-intellectual factors also come into consideration in the measurement of intelligence. Thorndike emphasizes that his hypothesis relates to inborn abilities, and he shows the method of differentiating these from the acquired. His method, however, is very inclusive and tedious, and is scarcely of practical importance in determining the grade of intelligence actually present at a given time, to say nothing of native intelligence. Moreover, one misses in Thorndike's studies the express recognition that intelligence is a relative conception. His scale is only apparently absolute. It could not conceivably hold for all times, all nationalities, or all vocations. Finally, his measurements involve the danger of splitting up the personality into partial abilities without ever grasping the total intelligence. When it is a question of determining a certain ability, his method is to be highly recommended, but for judgment of the total personality in regard to intelligence, it is insufficient.—*M. E. Morse* (Catonsville, Md.).

5073. Copeland, H. A. Familiarity of the stimulus in the word association test for measuring emotions. *J. Abn. & Soc. Psychol.*, 1932, 27, 89-91.—Failure or hesitancy to respond to a stimulus word, particularly among children, is often due to unfamiliarity with the word.—*C. H. Johnson* (Boston Psychopathic Hospital).

5074. Davis, R. C. Ability in social and racial classes. New York: Century, 1932. Pp. xiv + 114. \$1.75.—Measurements were made of the latent time

of the Achilles reflex, tapping speed, and body resistance between the backs of the wrists. The subjects were of eight groups, viz., white and negro college students, white and negro feeble-minded, white and negro school children (the white divided into a country and a city group), and mountaineer children. Statistically significant differences were found for all three measures in a large number of the inter-group comparisons, but there is much overlapping between groups. There is extensive discussion of the apparatus used, previous work on the problem, and the possible significance of the results.—*R. R. Wüloughby* (Clark).

5075. Frickx, J. Le test P. V. du Dr. Simon (II<sup>e</sup> partie). (The Simon P. V. test, second part.) *Bull. trimes. de l'office intercommunal d'orient. prof. de Bruxelles*, 1930, 9, 22-34.—The author gives an entire reproduction of the P. V. test, Part II, with a correction reckoner which is of great value, since such a scale is rarely found. He applied the test to 170 children from 11 to 15 years of age, students in the Brussels elementary schools. From his results he concludes that the test should not be given to children younger than 13 and that it is applicable up to 18 years. He set a time limit of one hour, but since a great number of the children failed to finish in this period, he believes that they should be allowed an unlimited period as recommended by Simon.—*A. B. Hunter* (Clark).

5076. Hetzer, H., & Koller, L. Vier Testreihen für das zweite Lebensjahr. (Four series of tests for the second year of life.) *Zsch. f. päd. Psychol.*, 1930, 31, 257-306.—This series of tests continues those published in 1928 for babies. The children were examined every quarter by means of development tests, and the authors sought to discover the characteristic functions for each phase. Four essential aspects were considered: mastery of the body, such as ability to stand alone, to hold to a chair, etc., and, later, self-mastery, such as obedience to an order, patience, perseverance, precaution, etc.; mastery of concrete materials, such as comprehension of pictures, attention to designs, colors, observation of construction made by another, games composed of cubes, sticks, etc.; social behavior with or without the aid of language; and memory, such as memory for an object shut in a box for a given time. The tests are graded so that they can be performed by 75% of normal children for a given age. Each child is given the test for his chronological age and for the preceding and following periods. Each test corresponds to a mental period of 9 days, and the results are added to or subtracted from the whole according to the success of the child.—*A. B. Hunter* (Clark).

5077. Heywood, H. B. The general factor in Spearman's theory of intelligence. *Nature*, 1931, 127, 306-307.—A short note on the mathematical aspect of Spearman's theory. A thorough, extra-statistical knowledge of the tests used is urged.—*A. B. Hunter* (Clark).

5078. Hsiao, H. H. A test of multi-adaptability. *Mental Testing* (Chinese), 1932, 1, 16-21.—The author describes an intelligence test called "a test of multi-adaptability." It consists of five parts in ten



pages. The first page is used for name, age, and amount of education. At the bottom of this page is an explanation of the aim of the test. The methods and explanations of the first four parts are found on pages 2, 4, 6, and 8 respectively, while the materials of these four parts are on pages 3, 5, 7, and 9 respectively. The last page is used exclusively for the fifth part. The purpose of this kind of arrangement is to avoid bringing the material and the explanations within the same field of vision. In the first part there are ten problems. Subjects are required to distinguish the relation between A and B. If A and B are even numbers, their sum is to be written on the dotted line. If A and B are odd numbers, their difference is to be written on the full line. In the second part there are twenty problems. The materials used are still the two letters A and B, which represent sometimes odd numbers and sometimes even numbers. The task is to subtract the smaller from the larger. For instance, when A is an even number and B an odd number, the difference is to be written on the dotted line if A is larger than B; and on the full line if A is smaller than B. But when A is an odd number and B an even number and A is larger than B, the difference is to be written on the full line; if smaller, on the dotted line. In the third part, there are eighteen problems. In addition to A and B, we have C and D. The method is the same as above. In the fourth part there are also eighteen problems. The method is just the opposite of the second and third parts, i.e., instead of subtraction addition is used. The fifth part is the same as the fourth, except that the use of dotted and full lines is irregular. The time limits for the five parts of the test are: 24 seconds, 3 minutes, 4 minutes and 32 seconds, 5 minutes, and 3 minutes, respectively. The characteristics of this test of multi-adaptability are (1) that education and training have no appreciable effect upon its score, (2) that mechanical or rote memory is not involved, (3) that irrelevant factors such as eyesight or reading ability are not involved, (4) that two kinds of adaptability are used, namely, positive anticipation and negative unexpected adaptation, and (5) that it demands quick and constant change of attention and mental set from the subject. The method of scoring takes account of both the numerical answers and the position of the answers. The first part is too easy to be used as an intelligence test. The subjects are all college undergraduates and graduates ranging from 18 to 50 years of age. Nine records are discarded. The correlation from 72 subjects with the Otis Self-Administering Test is  $.54 \pm .06$ . The coefficient of reliability by the split-half method is  $.68 \pm .04$ .—S. K. Chou (Tsing Hua University, Peiping, China).

5079. Jaxa-Bykowski, L. Kilka uwag o odpowiedziach błędnych przy badaniach pedologicznych. (Some observations concerning the false responses obtained in pedological studies.) *Kwar. Psychol.*, 1930, 2, 49-57.—In estimating the results obtained from intelligence tests, particularly the negative results, experimenters are apt to adopt certain schematisms which may give rise to hasty or erroneous diagnostics or prognostics. There are a great

number of wrong responses which may be due to accidental causes arising from the three following sources: the attitude of the child (momentary distraction, fatigue, indisposition, unwillingness, suspicion, apathy, etc.); the personality of the experimenter (unsuitable attitude, some kind of infirmity); and the method of wording or asking the questions. This third source of error is of great importance. The tests may not be adapted to the social and ethnic environment of the child or may not take sufficiently into account the realities of life (the syllogisms tests). Therefore, responses may be given which are false in appearance only. Generally speaking, the results obtained from group tests should not be used for diagnostic purposes without the supplementary information gained from individual tests.—A. B. Hunter (Clark).

5080. Koester, H. L. Ueber das Verhältnis der intellektuellen Begabung zur musikalischen, zeichnerischen und technischen Begabung. (On the relations between intellectual aptitudes and talents for music, drawing, and technical skills.) *Zeich. f. päd. Psychol.*, 1930, 31, 399-403.—For the purpose of studying intercorrelations between intellectual ability and special talents in music and design and in technical skills, Koester made a series of investigations in three different types of schools (primary, intermediate, and secondary). The teachers were asked to classify the subjects into six groups according to order of merit from the point of view of each aptitude. The results obtained from 3,000 subjects were found to be similar for the three types of schools investigated. Uniting the two groups at either end of the scale (thus making four main groups), the author found the following relations between intellectual and musical abilities: 40% of the subjects in the first two groups for musical ability were in the first two groups according to intelligence; 31% of them were in the third intelligence group; 26% were in the fourth; and 23% were in the last two groups. The percentages of the subjects classified in the last two musical groups were 10, 14, 31, and 28 as regards the four main divisions of the intelligence ranking. For drawing, the importance of the first two groups varied as follows as a function of the intelligence groups: 42%, 30%, 20%, and 12%. The subjects in groups 5 and 6 were 5%, 8%, 14%, and 17% of the four main intelligence groups. In regard to the technical questions, 54% in the first main group were found in the highest intelligence division, 35% in the second, 25% in the third, and 21% in the combined last two groups. Students in groups 5 and 6 for technical skill were found in the four intelligence groups as follows: 4%, 6%, 9%, and 17%. Thus it was clearly demonstrated that, to the degree that we pass from the superior groups in intelligence to the lower groups, the percentage of subjects having very definite special talents decreases, while the percentage of those judged to be mediocre in skill correlatively increases.—A. B. Hunter (Clark).

5081. Levitov, N. D. [The test of "compositions of pictures" for the study of intelligence.] *Psikhotekn. i psikhofiziol. truda*, 1930, 3, 129-142.—The test

consists in giving the children certain titles and then asking them to imagine several suitable picture compositions. 149 children of the seventh grade, from 14 to 19 years of age, were tested. The following titles were used: "Captured," "The Squall," and "The Victim of Duty." Two and a half minutes were allowed each time for imagining the composition of the pictures. For all of the three topics the number of correct solutions varied from 1 to 18, while the arithmetical mean was 7.35 ( $\sigma = 4.05$ ). The average intercorrelations between the three topics varied from .49 to .55, if the number of responses only was considered. Taking into account the degree of originality of the responses, the intercorrelations were higher: .53 to .68 according to the classes tested. The coefficient of multiple correlation with scholastic standing (the mother language and social sciences) was .53 on the average. Believing that by means of this test certain important aptitudes regarding teaching ability could be disclosed (ability to give concrete examples rapidly and to express them in a concise and striking form), Levitov tested a group of normal school students. He found that correlations with estimates of the pedagogical abilities of the students were  $r = .50$  for 25 fourth-year students and  $r = .66$  for 21 third-year students.—A. B. Hunter (Clark).

5082. Nassri, K. Tests d'intelligence et rendement scolaire. (Intelligence tests and scholastic achievement.) Paris: Presses Universitaires, 1930. Pp. 246.—The author gave a group of Paris school children two different types of tests: a verbal form which consisted of the Lahy intelligence test plus certain additional questions from other writers; and a non-verbal form, the Pintner-Paterson performance test. These tests and their application are described in detail and the results given. Though he believes that the two types are intended for different forms of intelligence, Nassri found that the index of correlation obtained through a comparison of the intelligence quotients for the two methods was quite high, being  $.68 \pm .036$  for 100 subjects. Unfortunately, the non-verbal test (the American standardization of which is not valid for Paris children) is best suited for the determination of levels for young children. Its upper limit is too low, for the tests are not suited to children beyond the age of 9. Thus a comparison of the two methods is not entirely satisfactory. Nassri discusses the possible uses of the tests for comparisons of groups and for individual analyses of abnormal cases. He gives a detailed example of such a case.—A. B. Hunter (Clark).

5083. Piaggio, N. T. H. The general factor in Spearman's theory of intelligence. *Nature*, 1931, 127, 56-57.—A short note on the mathematical aspect of Spearman's theory.—A. B. Hunter (Clark).

5084. Root, A. R., & Root, E. B. A study of the Neymann-Kohlstedt diagnostic test for introversion-extroversion. *J. Abn. & Soc. Psychol.*, 1932, 26, 415-421.—This study of the Neymann-Kohlstedt test tends to corroborate the findings of the designers. Changeability, variability, or stability were found to vary according to a curve of chance.—C. H. Johnson (Boston Psychopathic Hospital).

5085. Thomson, G. H. The standardization of group tests and the scatter of intelligence quotients. A contribution to the theory of examining. *Brit. J. Educ. Psychol.*, 1932, 2, 125-138.—Suggests that IQ's be replaced by standard scores with the mean score for an age given the value 50 and the standard deviation 15. Warning is given against preventing the obtaining of scores in upper ranges by including too difficult problems and allowing inadequate scores to correct answers. "Allowance for age" in group subject-matter tests needs to be based on the statistical facts of the particular examination, not on some arbitrary pre-arranged scheme. Appendices are included on fitting lines of norms by least squares, on calculating  $r$  and regression lines, on drawing a normal curve to fit a distribution of scores, and on samples from Moray House test 11.—K. M. Cowdery (Stanford).

5086. Thonless, R. H. A fallacious argument in educational psychology. *Brit. J. Educ. Psychol.*, 1932, 2, 196-198.—The author takes issue with the assumption that a test is shown to be an improved measure of an aptitude if it gives a higher correlation with the mean of scores on two tests than with those of each separately. He states that Spearman's correlation of sums estimated from two magnitudes measured separately proves that the above relationship exists whether the test is good or bad.—K. M. Cowdery (Stanford).

5087. Weber, C. O. Further tests of the Wells emotional age scale. *J. Abn. & Soc. Psychol.*, 1932, 27, 65-78.—The third revision of this test gave higher correlations with other variables than did the first revision. There was a positive correlation with intelligence which the author considered too high and which should be corrected in the fourth revision. Both emotional and mental ages correlated negatively with the degree of offense, as was expected. Both tests correlated negatively with chronological age. The author suggests that this test may reveal that human thinking is bimodal, not unimodal.—C. H. Johnson (Boston Psychopathic Hospital).

5088. Wojciechowski, J. Metody oceny wyników testów wobec dążeń do ujednolicania. (Methods of evaluating the results of tests and attempts at rendering them uniform.) Biegeleisen, B. Jeszcze o ocenie wyników testów. (Additional remarks apropos of the evaluation of test results.) Wojciechowski, J. Odpowiedz p. Drowi B. (Response to Biegeleisen.) *Psychoteknika*, 1930, 4, 166-181.—The articles are a polemic apropos of the different methods used in the psychotechnical institutes in Poland. Wojciechowski, who is a partisan of the use of a single method, proposes that Galton's or Claparède's method should be adopted, while Biegeleisen, who does not consider that uniformity of method is entirely desirable, advocates the use of the Otis curve which is, according to his viewpoint, only that of Galton transposed to different coordinates.—A. B. Hunter (Clark).

[See also abstracts 4709, 4773, 4811, 4920, 4957, 5012, 5020.]



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